Historic, Archive Document

Do not assume content reflects current scientific knowledge, policies, or practices.





WATER SUPPLY OUTLOOK FOR DEPT. OF AGRICULTURED MONTANA NATIONAL RECORD

Prepared by

U. S. DEPARTMENT of AGRICULTURE ★ SOIL CONSERVATION SERVICE

Collaborating with

MONTANA AGRICULTURAL EXPERIMENT STATION

Data included in this report were obtained by the agencies named above in cooperation with Federal, State, and private organizations listed on the inside back cover of this report.



TO RECIPIENTS OF WATER SUPPLY OUTLOOK REPORTS:

Most of the usable water in western states originates as mountain snowfall. This snowfall accumulates during the winter and spring, several months before the snow melts and appears as streamflow. Since the runoff from precipitation as snow is delayed, estimates of snowmelt runoff can be made well in advance of its occurrence. Streamflow forecasts published in this report are based principally on measurement of the water equivalent of the mountain snowpack.

Forecasts become more accurate as more of the data affecting runoff are measured. All forecasts assume that climatic factors during the remainder of the snow accumulation and melt season will interact with a resultant average effect on runoff. Early season forecasts are therefore subject to a greater change than those made on later dates.

The snow course measurement is obtained by sampling snow depth and water equivalent at surveyed and marked locations in mountain areas. A total of about ten samples are taken at each location. The average of these are reported as snow depth and water equivalent. These measurements are repeated in the same location near the same dates each year.

Snow surveys are made monthly or semi-monthly from January 1 through June 1 in most states. There are about 1900 snow courses in Western United States and in the Columbis Basin in British Columbia. Networks of automatic snow water equivalent and related data sensing devices, along with radio telemetry are expanding and will provide a continuous record of snow water and other parameters of key locations.

Detailed data on snow course and soil moisture measurements are presented in state and local reports. Other data on reservoir storage, summaries of precipitation, current streamflow, and soil moisture conditions at valley elevations are also included. The report for Western United States presents a broad picture of water supply outlook conditions, including selected streamflow forecasts, summary of snow accumulation to date, and storage in larger reservoirs.

Snow survey and soil moisture data for the period of record are published by the Soil Conservation Service by states about every five years. Data for the current year is summarized in a West-wide basic data summary and published about October 1 of each year.

PUBLISHED BY SOIL CONSERVATION SERVICE

The Soil Conservation Service publishes reports following the principal snow survey dates from January 1 through June 1 in cooperation with state water administrators, agricultural experiment stations and others. Copies of the reports for Western United States and all state reports may be obtained from Soil Conservation Service, Western Regional Technical Service Center, Room 209, 701 N. W. Glisan, Portland, Oregon 97209.

Copies of state and local reports may also be obtained from state offices of the Soil Conservation Service in the following states:

STATE	ADDRESS
Alaska	P. O. Box "F", Palmer, Alaska 99645
Arizona	6029 Federal Building, Phoenix, Arizona 85025
Colorado (N. Mex.)	12417 Federal Building, Denver, Colorado 80202
Idaho	Room 345, 304 N. 8th. St., Boise, Idaho 83702
Montana	P. O. Box 970, Bozeman, Montana 59715
Nevada	P. O. Box 4850, Reno Nevada 89505
Oregon	1218 S. W. Washington St., Portland, Oregon 97205
Utah	4012 Federal Bldg., 125 South State St., Salt Lake City, Utah 84111
Washington	360 U.S. Court House, Spokane, Washington 99201
Wyoming	P. O. Box 2440, Casper, Wyoming 82601

CONSERVATION OF WA

PUBLISHED BY OTHER AGENCIES

Water Supply Outlook reports prepared by other agencies include a report for California by the Water Supply Forecast and Snow Surveys Unit, California Department of Water Resources, P. O. Box 388, Sacramento, California 95802 --- and for British Columbia by the Department of Lands, Forests and Water Resources, Water Resources Service, Parliament Building, Victoria, British Columbia

WATER SUPPLY OUTLOOK FOR MONTANA

and FEDERAL - STATE - PRIVATE COOPERATIVE SNOW SURVEYS

Issued by

KENNETH E. GRANT

ADMINISTRATOR
SOIL CONSERVATION SERVICE
WASHINGTON, D.C.

Released by

A. B. LINFORD

STATE CONSERVATIONIST
SOIL CONSERVATION SERVICE
Bozeman, Montana

In Cooperation with

J. A. ASLESON.

DIRECTOR

Montana Agricultural Experiment Station

Report prepared by

PHILLIP E. FARNES, Snow Survey Supervisor and

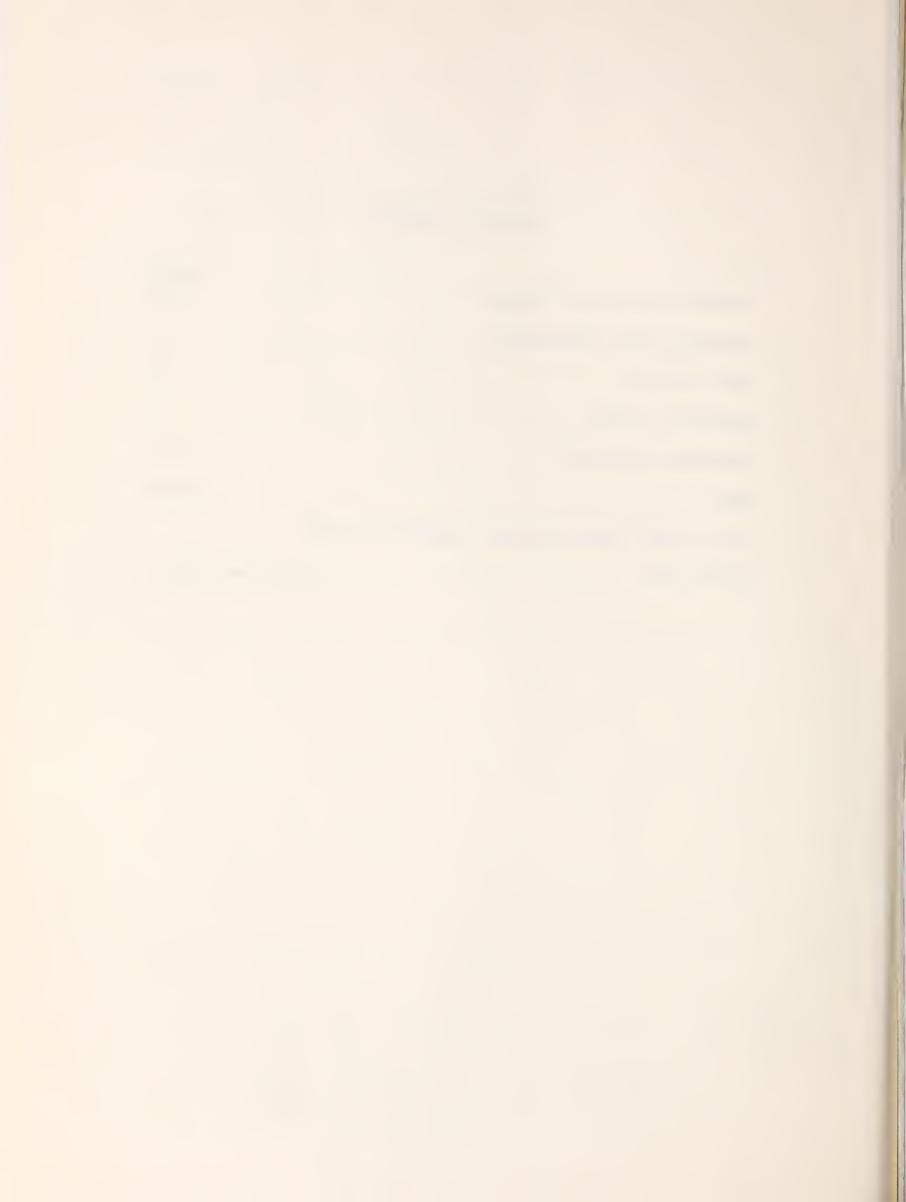
GEORGE P. CLAGETT, Assistant Snow Survey Supervisor

SOIL CONSERVATION SERVICE P.O. Box 98 Bozeman, Montana 59715



TABLE OF CONTENTS

MONTANA WATER SUPPLY OUTLOOK	• •	Page 1-2
SUMMARY OF SNOW MEASUREMENTS	• •	3
SOIL MOISTURE	• •	4
RESERVOIR STORAGE	• •	5
STREAMFLOW FORECASTS	• •	6-12
SNOW	• •	13-19
MAP OF SNOW COURSES AND SOIL MOISTURE STATIONS		
COOPERATORS Inside	Back	Cover



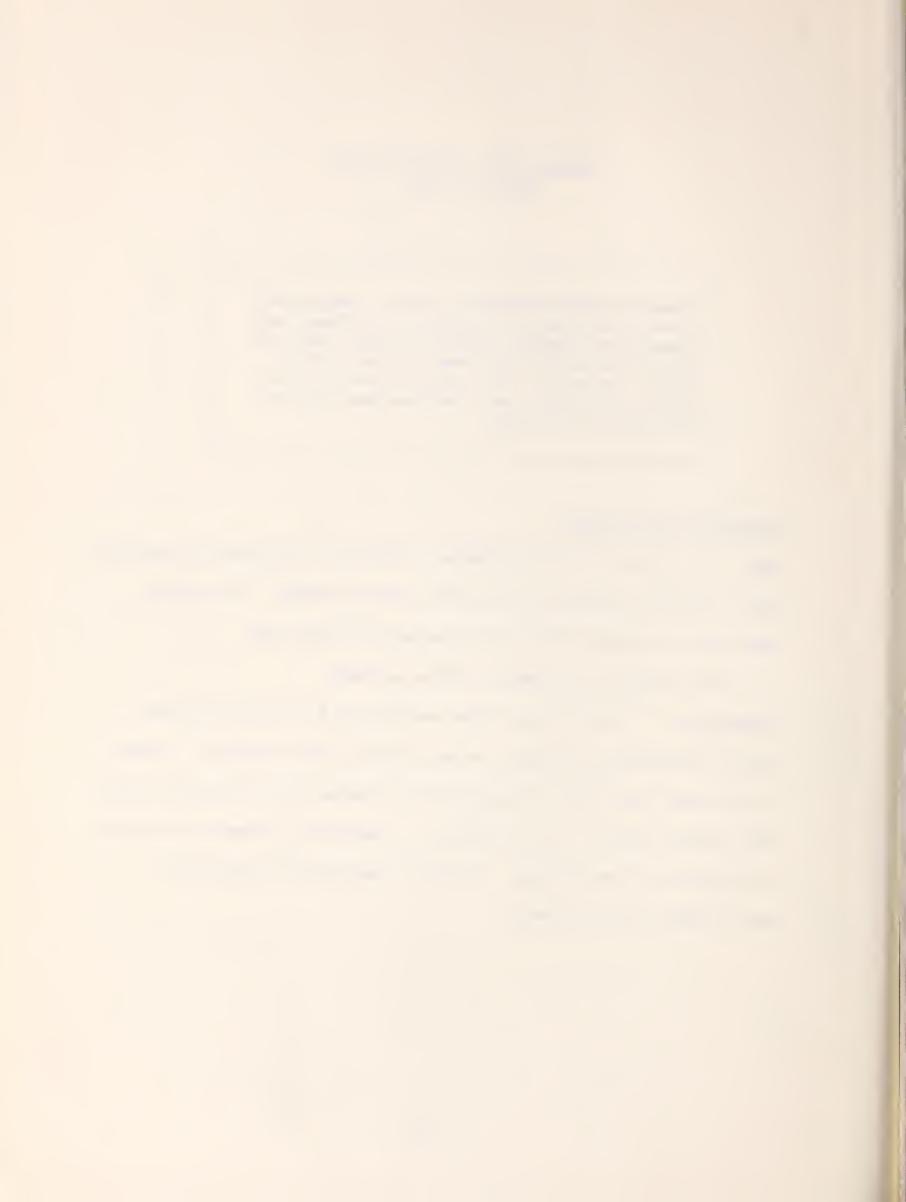
MONTANA WATER SUPPLY OUTLOOK March 1, 1971

COLUMBIA RIVER DRAINAGE

Snow - All Columbia River drainages in Montana, including the Kootenai, have a snow pack between 120 and 125 percent average. In general, snow cover is between 125 and 145 percent of last year.

Soil moisture is average to above average.

Streamflow - On the Kootenai River and portions of the Bitterroot River, streamflow is forecast to be a little above average. Streams in the upper Clark Fork are expected to produce 10 to 25 percent more than normal runoff. In the Flathead, streamflow is expected to be 10 to 20 percent above average. Runoff is expected to exceed last year's flows on all streams.



MISSOURI RIVER DRAINAGE

Snow - The snow pack is record or near record in the southwestern Montana drainages. The three headwater tributaries to the Missouri River have a snow pack about 140 percent average and 10 to 50 percent more than last year. The snow pack on the remainder of the drainage is 130 to 140 percent average.

Streamflow - In general, forecasts are for volumes near or above those of last year. Runoff in major streams in southwestern Montana is forecast to be about 40 percent above average. Streams in the Beaverhead River are forecast to produce nearly twice their normal volume. Well above average flows are expected from the mountainous areas of central Montana. Streams north of Helena, originating along the Continental Divide are forecast to produce between 10 and 20 percent above average flows.

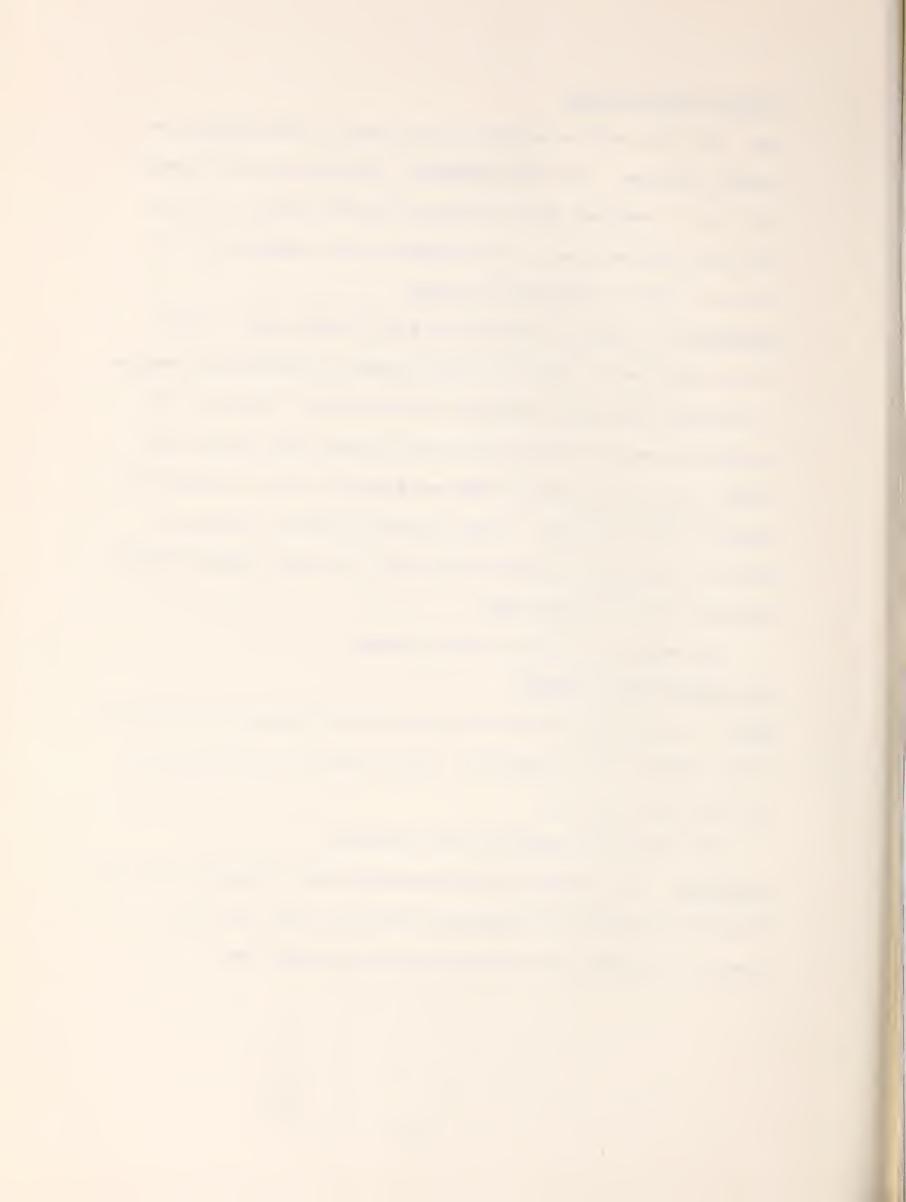
Soil moisture is near to above average.

YELLOWSTONE RIVER DRAINAGE

Snow - The snow pack is heavy over most of the Yellowstone River and Little Bighorn River headwaters. The snow pack is near average in the Red Lodge area only.

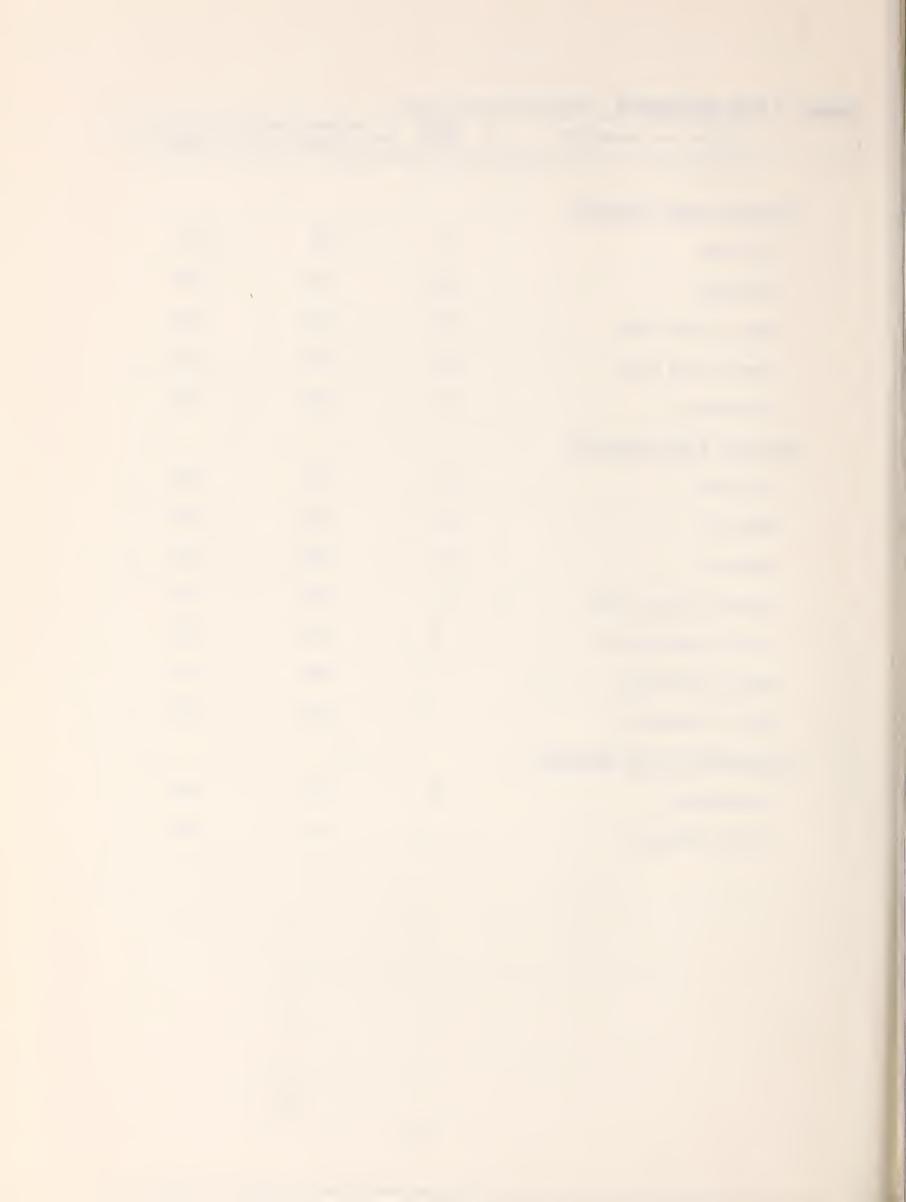
Soil moisture generally is near average.

<u>Streamflow</u> - All streams in the Yellowstone River drainage, with the exception of those in the immediate vicinity of Red Lodge are expected to produce 30 to 40 percent above average flows.



SUMMARY OF SNOW MEASUREMENTS (COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses	THIS YEAR'S SNOW WATER AS PERCENT OF:		
	Averaged		Average	
COLUMBIA RIVER DRAINAGE				
Kootenai	16	134	116	
Flathead	19	126	120	
Upper Clark Fork	26	143	122	
Lower Clark Fork	10	135	122	
Bitterroot	12	136	122	
MISSOURI RIVER DRAINAGE				
Jefferson	22	156	138	
Madison	16	144	138	
Gallatin	13	109	140	
Mi ss ouri Main Stem	11	125	135	
Judith-Musselshell	8	94	127	
Marias-Teton-Sun	6	166	132	
Milk (Headwaters)	2	156	140	
YELLOWSTONE RIVER DRAINAGE				
Yellowstone	28	125	146	
Little Bighorn	7	97	128	



DRAINAGE BASIN and/or STATION

 Name	Elevation	Depth	Capacity	Date of Survey	This Year	Last Year	Average +
	COLUMBIA	RIVER	BASTN				
Kootenai				- 4			
Baree Trail	3800	48	7.5	2/27	6.4	6.3	6.4
Murphy Lake R. S.	3000	48	22.6	2/26	20.6	19.3	20.7
Raven R. S.	3050	48	23.0	3/03	16.3	-	20.6
Flathead							
Desert Mountain	5600	54	8.4	2/26	8.5	6.4	7.3
Marias Pass	5250	54	6.5	2/27	6.7	4.6	5.4
				_,			
Clark Fork				- 1 -			
Black Pine	7100	48	10.0	2/25	7.8	7.4	7.3
Lubrecht Forest	4100	48	26.8	3/01	16.4	-	-
Seeley Lake R. S.	4030	48	11.9	3/04	11.1	5.9	7.8
Skalkaho Summit	7260	48	10.8	2/23	10.2	9.6	9.7
Bitterroot							
Gibbons Pass	7100	48	7.1	3/01	6.0	3.5	5.3
Lolo Pass	5250	48	10.6	3/03	6.5	5.0	6.3
	MISSOURI	RIVER	BASIN				
D							
Beaverhead	6700		15.0	2/01	()		7 7
Lakeview	6700	48	15.3	3/01	6.4	-	7.7
Madison							
West Yellowstone	6700	48	6.5	2/28	2.9	2.0	2.5
Gallatin							
Bridger Bowl	7250	48	17.0	2/26	16.6	16.4	16.2
College Site No. 2	4856	54	14.5	2/26	16.1	16.0	13.6
Lick Creek	6860	48	18.8	2/24	17.4	17.1	16.7
Twenty-One Mile	7150	48	10.0	2/28	5.8	1.8	3.6
Twenty one filte	/150	40	10.0	2/20	J.0	1.0	3. 0
Missouri Main Stem							
Kings Hill	7420	48	11.8	2/26	5.0	6.5	6.7
Stemple Pass	6350	48	5.9	3/05	3.8	3.4	4.0
Milk							
Beaver Creek	3950	48	10.9	3/03	15.5	8.5	-
Rocky	4700	3 6	10.1	3/03	7.5	7.1	-
	7700	•	2011	5,05	, • 5	,	
Yellowstone							10 =
Battle Ridge	6020	48	17.6	2/26	16.6	13.3	13.5
Northeast Entrance	7350	48	9.4	2/28	5.1	4.9	6.1

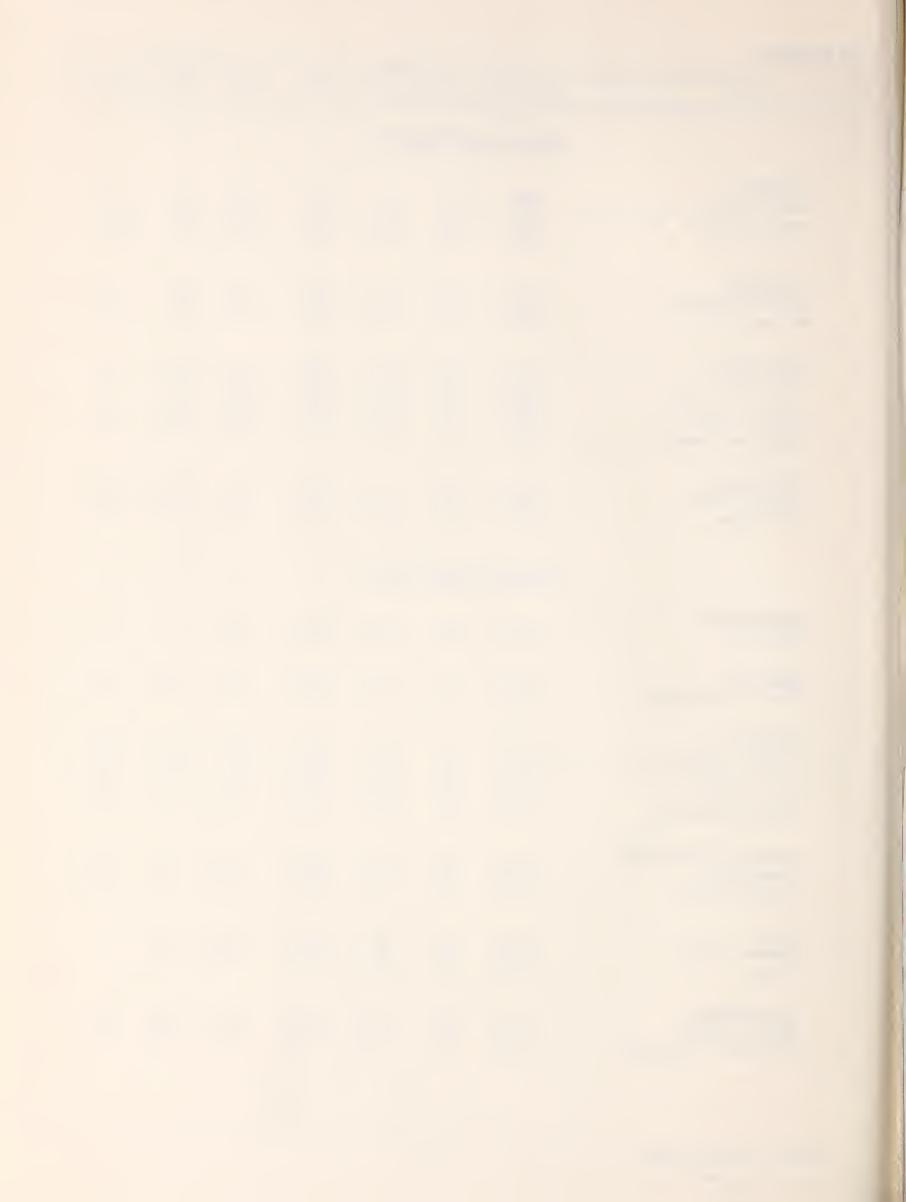
Profile (Inches)

Date of

Soil Moisture (Inches)

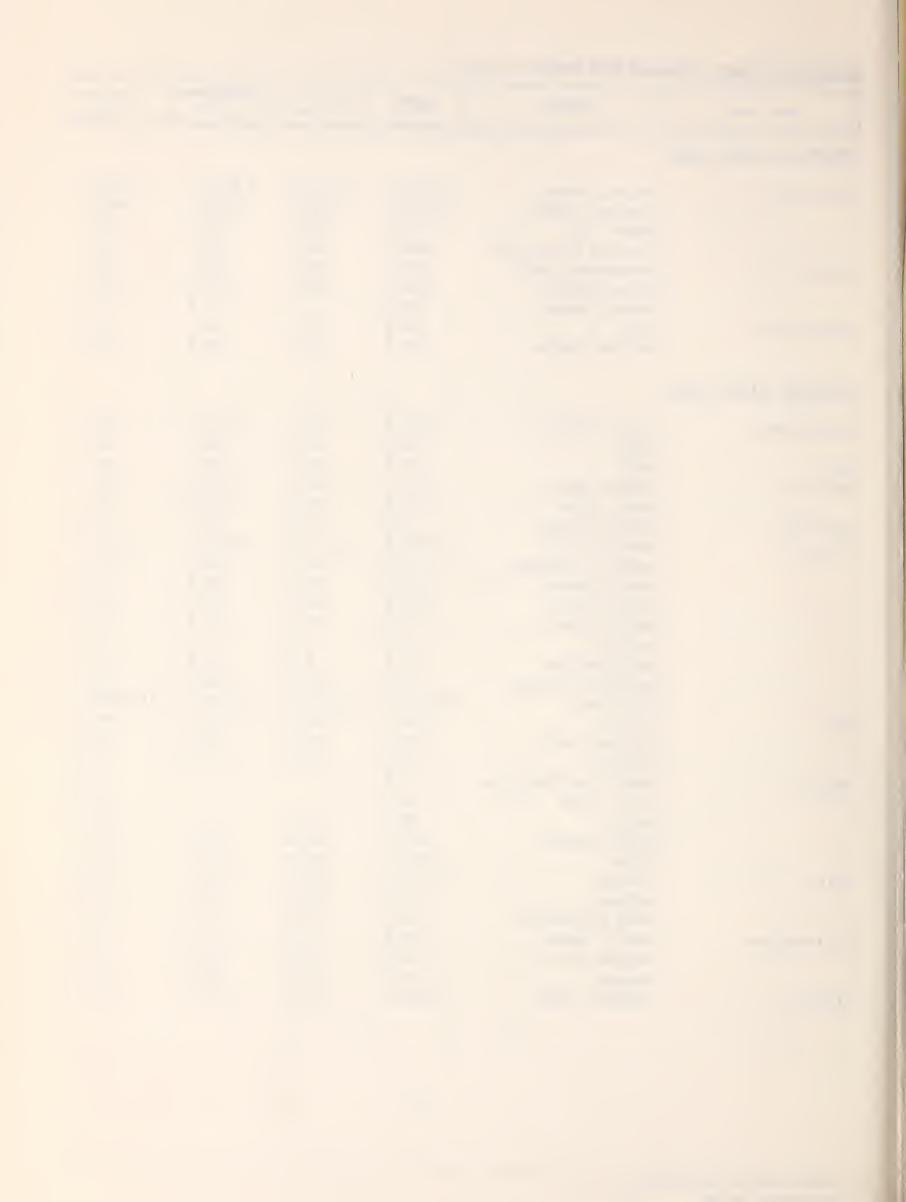
⁻⁴⁻

⁺ Average for period of record.



RESERVOIR STORAGE (Thousand Acre Feet) END OF MONTH

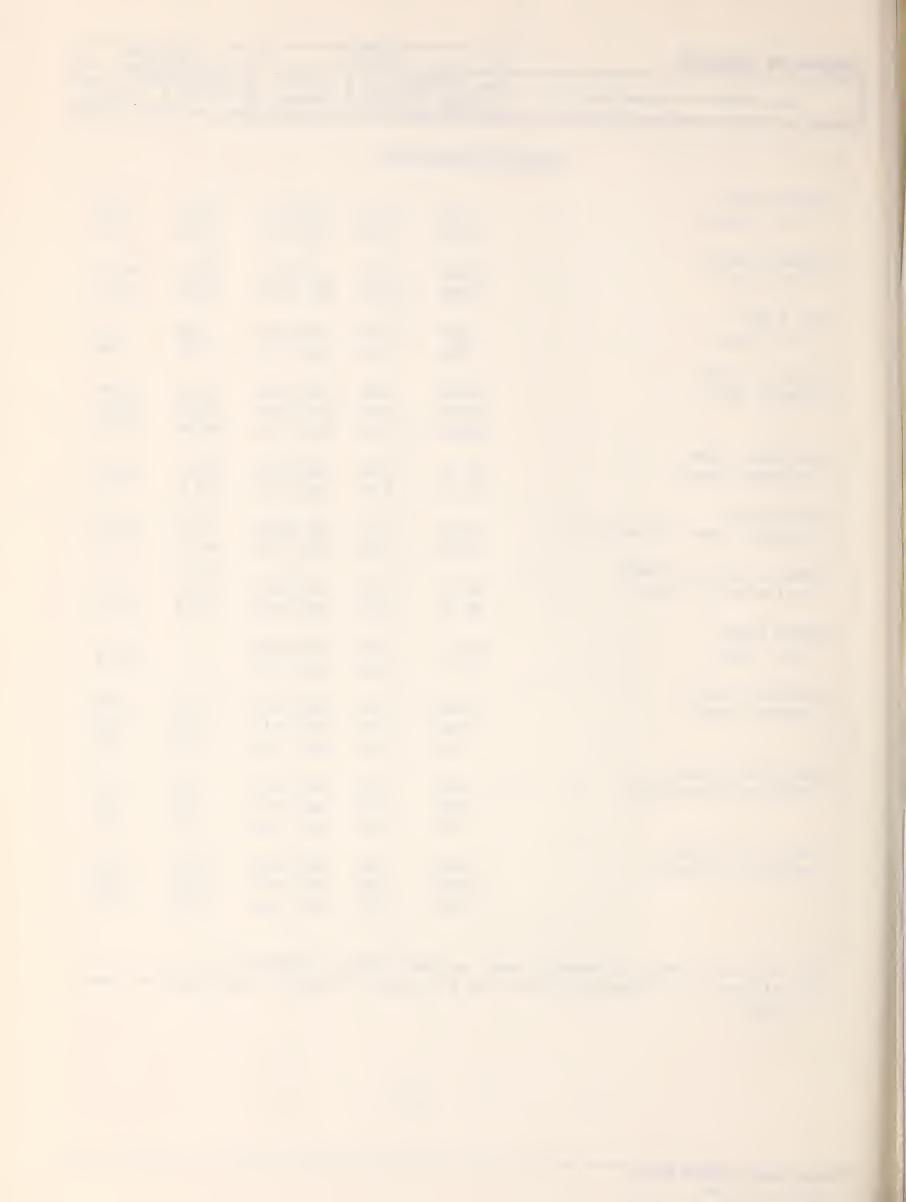
	1		T	Usable Storage					
Basin or Stream	RESERVOIR	Usable Capacity	This Year	Last Year	Average				
COLUMBIA RIVER BASI	COLUMBIA RIVER BASIN								
Flathead	Hungry Horse	3,428.0	2,111.0	2,038.0	2,269.0				
	Flathead Lake	1,791.0	926.7	908.7	963.0				
	Camas (4)	45.2	21.5		28.6				
	Mission Valley (8)	100.3	41.7	=	32.7				
Clark Fork	Georgetown Lake	31.0	26.6	25.8	23.6				
	Noxon Rapids	334.6	331.4	313.6	293.4				
	Nevada Creek	12.6		6.2	4.9				
Bitterroot	Como	34.9	11.7		11.6				
	Painted Rocks	31.7	25.5	19.3	20.9				
MISSOURI RIVER BASI	N								
75 1 1									
Beaverhead	Clark Canyon	328.9		142.7	129.5				
D . 1	Lima	84.0	42.1	44.5	22.9				
Ruby	Ruby	38.8	29.6	32.4	26.5				
Madison	Hebgen Lake	377.5	266.5	266.1	170.7				
Callatin	Ennis Lake	41.0	34.8	35.6	37.7				
Gallatin	Middle Creek	8.0	4.5	4.1	3.6				
Missouri	Canyon Ferry	2,043.0	1,577.0	1,632.0	1,562.0				
	Hauser & Helena	61.9	61.9	62.5	57.1				
	Lake Helena	10.4	10.4	10.7	8.8				
	Holter Lake	81.9	80.6	73.5	54.3				
	Smith River	10.7	6.1	5.1	6.3				
	Durand	7.0	5.3	3.6	4.4				
	Martinsdale	23.1	9.3	4.8	6.4				
	Deadman's Basin Fort Peck	,	55.0	28.9	46.1				
Sun	Gibson		16,330.0						
Sull	Willow Creek	105.0 32.3	42.9		49.4				
	Pishkun	32.3	22.9		20.8				
Marias	Lower Two Medicine	16.6	17.0	17.4	17.7				
	Four Horns	19.2		_	0.0 12.1				
	Swift	30.0	17.1	_	19.7				
	Lake Frances	112.0	86.0	82.8	83.5				
	Tiber	1,347.0	483.4	527.3	628.0				
Milk	Fresno	127.2	80.2	65.7	59.4				
	Nelson	66.8	48.3		41.0				
	Lake Sherburne	66.1	21.9	17.6	20.6				
Yellowstone	Mystic Lake	20.8	5.9	5.4	7.7				
	Tongue River	68.0	47.5	32.6	22.8				
	Cooney	27.5	17.3	14.9	14.3				
Bighorn	Bighorn Lake	1,356.0	912.5	695.9	586.8				



	COLUMBIA RIVER B	ASIN			
FISHER RIVER					
Libby (near)	320	107	Apr-Sept	232	298
	305	108	Apr-July	218	281
KOOTENAI RIVER					
Libby (at)	8300	103	Apr-Sept	5362	8025
	7300	105	Apr-July	4628	6956
YAAK RIVER	(25	100	A - G - 1	/ 00	F 7 0
Troy (near)	625 605	109 110	Apr-Sept	408	573
KOOTENAI RIVER	005	110	Apr-July	390	549
Leonia (at)	9600	104	Apr-Sept	6256	9198
Leonia (at)	8500	105	Apr-July	5409	8072
	6800	105	Apr-June	4494	6463
RACETRACK CREEK			T		
Anaconda (near)	37.6	110	Apr-Sept	37.7	34.1
	30.5	110	Apr-July	30.6	27.6
FLINT CREEK					
Boulder Creek (below)(3)	78 .0	112	Apr-Sept	78.4	69.6
	63.0	114	Apr-July	61.3	55.1
MIDDLE FORK ROCK CREEK	00.0	101		01 5	70 /
Philipsburg (near)	89.0	121	Apr-Sept	81.5	73.4
MEMADA CREEK	81.0	122	Apr-July	73.3	66.2
NEVADA CREEK	29.5	143	Apr-Sept		20.7
Finn (near)	27.5	143	Apr-July		19.3
BLACKFOOT RIVER	27.5	143	Apr-3dry		17.5
Bonner (near)	1240	123	Apr-Sept	977	1008
(1140	125	Apr-July	884	912
	990	125	Apr-June	768	788
CLARK FORK RIVER			·		
Milltown (above)(4)	920	122	Apr-Sept	789	755
	820	125	Apr-July	705	659
	705	125	Apr-June	575	562
CLARK FORK RIVER		1.00		1706	1760
Missoula (above)	2160	123	Apr-Sept	1786	1763
	1960	125	Apr-July	1590	1572 1 3 50
	1695	125	Apr-June	1343	1330

⁽³⁾ Sum Flint Creek at Maxville and Boulder Creek at Maxville.

⁽⁴⁾ Difference in observed flow Clark Fork above Missoula and Blackfoot near Bonner.

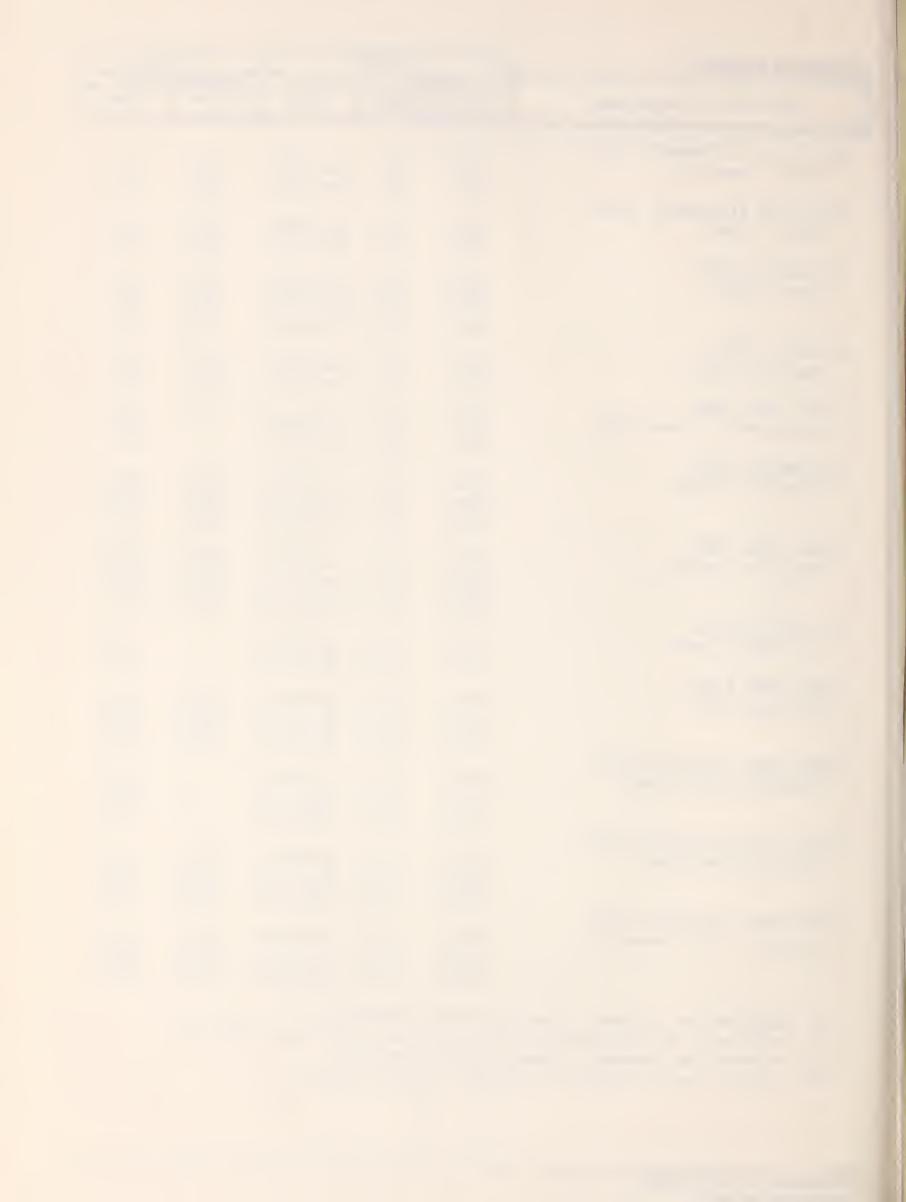


STREAMFLOW FORECASTS	THIS YEAR				PAST RECORD		
	FORE	FORECAST FORECAST			THOUSAND ACRE FEET		
BASIN, STREAM and/or FORECAST POINT	Thousand Acre Feet	Percent of Average	PERIOD	Last Year	Average		
WEST FORK BITTERROOT RIVER							
Conner (near)(5)	210	123	Apr-Sept	197	170		
() ()	195	123	Apr-July	183	158		
EAST FORK BITTERROOT RIVER				203	130		
Conner (near)	197	116	Apr-Sept	182	170		
oomer (mear)	180	117	Apr-July	165	154		
BITTERROOT RIVER	200			103	134		
Darby (near)	660	118	Apr-Sept	629	558		
barby (near)	620	120	Apr-July	582	517		
	542	120	Apr-June	493	453		
SKALKAHO CREEK	342	120	npi-sune	473	400		
Hamilton (near)	60.0	107	Apr-Sept	55.9	55.8		
namificon (near)	53.0	108	Apr-July	48.2	48.9		
BURNT FORK CREEK	23.0	100	Apr-Jury	40.2	40.7		
Stevensville (near)(10)	38.0	111	Apr-Sont		34.2		
Stevensville (near)(10)	33.5	113	Apr-Sept				
DITTED DOOT DIVED	33.7	113	Apr-July		29.6		
BITTERROOT RIVER	1690	115	A C	1526	1///		
Missoula (at)(6)	1580	115	Apr-Sept	1536	1466		
		116	Apr-July	1424	1360		
OLADY FORWARD	1360	116	Apr-June	1194	1175		
CLARK FORK RIVER	2050	110	A C t	2222	2000		
Missoula (below)	3850	119	Apr-Sept	3323	3229		
	3540	121	Apr-July	3014	2932		
CT DECTE DIVED	3055	121	Apr-June	2537	2525		
ST. REGIS RIVER	205	110	A		222		
St. Regis (near)	395	119	Apr-Sept		332		
OI ANY DANY DIVIN	375	119	Apr-July		316		
CLARK FORK RIVER	5050	110		1.150	1000		
St. Regis (at)	5250	119	Apr-Sept	4452	4398		
	4810	120	Apr-July	4048	3993		
NODELL BODY BY AMURAD DIVID	4150	120	Apr-June	3402	3451		
NORTH FORK FLATHEAD RIVER	2012	4 4 4			0000		
Columbia Falls (near)	2240	111	Apr-Sept		2023		
	2070	112	Apr-July		1846		
WIRDIN HORY TI I WIND DIVING	1750	112	Apr-June		1562		
MIDDLE FORK FLATHEAD RIVER	01/0			1070	1001		
West Glacier (near)	2140	111	Apr-Sept	1878	1931		
	2020	113	Apr-July	1754	1791		
COMMUNICATION AND AND AND AND AND AND AND AND AND AN	1730	113	Apr-June	1555	1521		
SOUTH FORK FLATHEAD RIVER	0000	110	4 3	6045	0050		
Columbia Falls (near)(7)	2800	119	Apr-Sept	2245	2358		
	2650	119	Apr-July	2128	2235		
	2340	119	Apr-June	1936	1967		

⁽⁵⁾ Adjusted for storage in Painted Rocks Reservoir.

⁽⁶⁾ Difference in observed flow Clark Fork above and below Missoula.

⁽⁷⁾ Adjusted for storage in Hungry Horse Reservoir.
(10) Adjusted for diversion into Sunset Highline Canal.

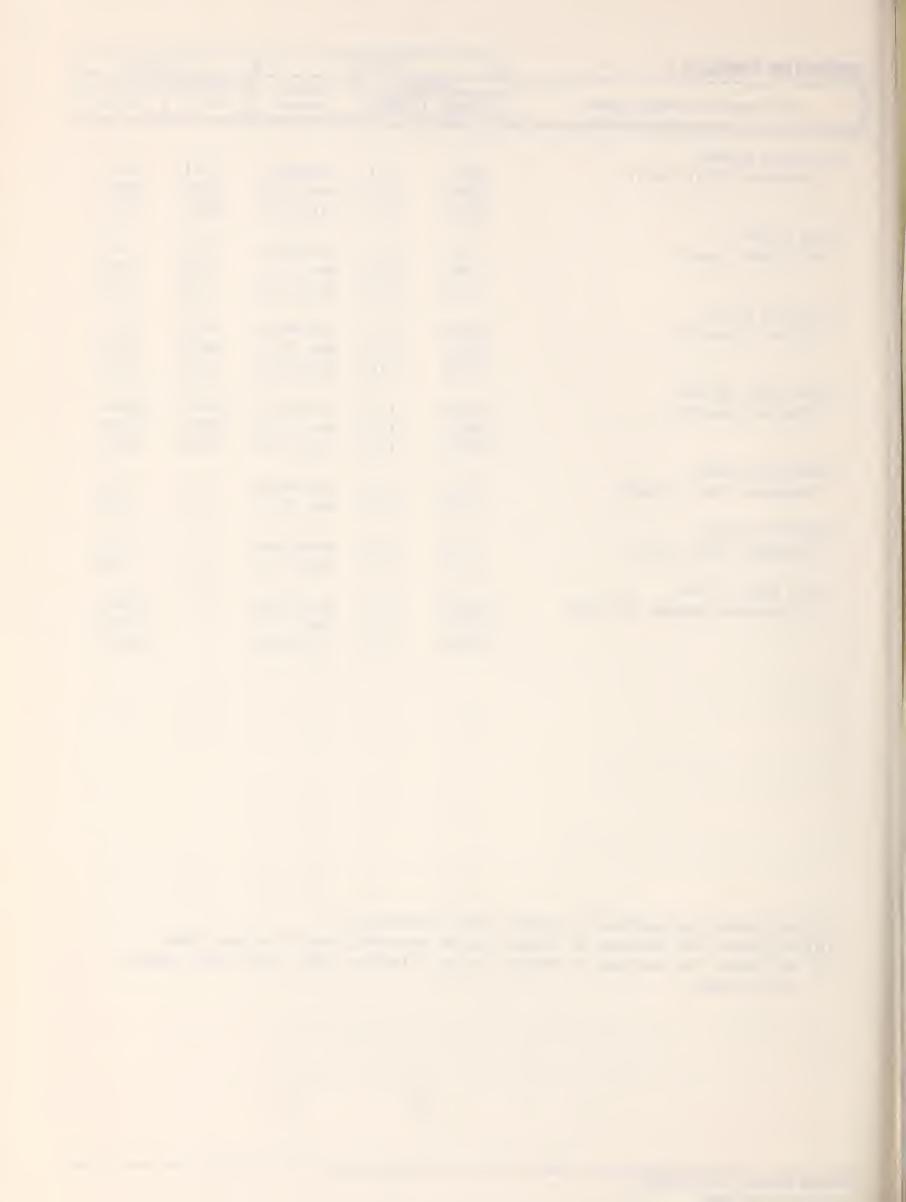


TREAMFLOW FORECASTS	THIS YEAR			PAST RECORD		
	FORE	FORECAST		THOUSAND ACRE FEET		
BASIN, STREAM and/or FORECAST POINT	Thousand Acre Feet	Percent of Average	FORECAST PERIOD	Last Year	Average	
FLATHEAD RIVER						
Columbia Falls (at)(7)	7300	113	Apr-Sept	5791	6467	
	6860	114	Apr-July	5464	6003	
	5900	114	Apr-June	4871	5155	
SWAN RIVER						
Big Fork (near)	785	114	Apr-Sept	771	688	
	700	115	Apr-July	691	607	
	570	115	Apr-June	576	496	
FLATHEAD RIVER						
Polson (near)(8)	8900	115	Apr-Sept	6828	7701	
	8250	115	Apr-July	6454	7157	
	7100	116	Apr-June	5674	6123	
CLARK FORK RIVER						
Plains (near)(8)	14700	118	Apr-Sept	11901	12482	
	13420	118	Apr-July	10977	11448	
	11600	118	Apr-June	9509	9802	
THOMPSON RIVER						
Thompson Falls (near)	325	115	Apr-Sept		283	
	290	115	Apr-July		253	
PROSPECT CREEK						
Thompson Falls (at)	175	115	Apr-Sept		152	
	165	115	Apr-July		143	
CLARK FORK RIVER						
Whitehorse Rapids (at)(9)	16400	117	Apr-Sept		139 87	
	14970	117	Apr-July		12787	
	12850	117	Apr-June		10953	

⁽⁷⁾ Adjusted for storage in Hungry Horse Reservoir.

⁽⁸⁾ Adjusted for storage in Hungry Horse Reservoir and Flathead Lake.

⁽⁹⁾ Adjusted for storage in Hungry Horse, Flathead Lake and Noxon Rapids Reservoirs.



THIS YEAR PAST RECORD

FORECAST THOUSAND ACRE FEET

BASIN, STREAM and/or FORECAST POINT

Thousand Percent of Average

PERIOD

Last Year Av.

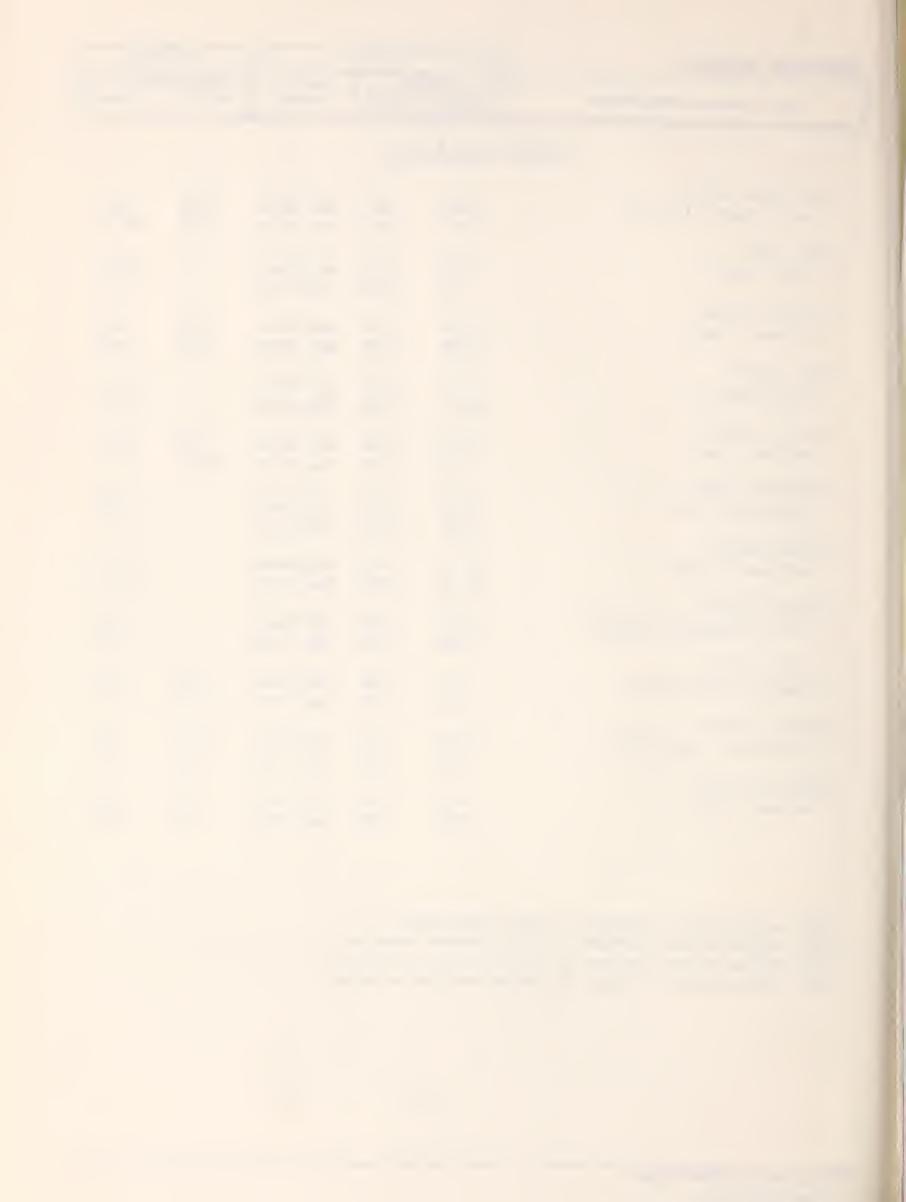
MISSOURI RIVER BASIN						
BEAVERHEAD RIVER						
Grant (near)(11)(12)	200	188	Apr-Sept	198	106	
	187	208	Apr-July	173	90.0	
RUBY RIVER	105	101	A C t-		00.0	
Alder (near)	90	131 134	Apr-Sept Apr-July		80.0 67.0	
BIG HOLE RIVER	70	134	npr sary		07.0	
Melrose (near)	890	129	Apr-Sept	815	690	
	830	129	Apr-July	754	642	
BIRCH CREEK	17.5	10/				
Glen (near)	17.5	134	Apr-Sept		13.1	
DAIL DED DIVED	14.8	134	Apr-July		11.0	
BOULDER RIVER Boulder (near)	113	143	Apr-Sept	100	78.9	
bodider (hear)	108	143	Apr-July	96.8	75.5	
JEFFERSON RIVER		-,0		J 0. 0	73.3	
Sappington (at)	1360	144	Apr-Sept		948	
	1218	142	Apr-July		857	
WILLOW CREEK	00.5					
Harrison (near)	22.5	145	Apr-Sept		15.5	
MADISON RIVER	21.0	145	Apr-July		14.2	
West Yellowstone (near)	266	125	Apr-Sept		212	
west refromsection (mean)	204	128	Apr-July		160	
MADISON RIVER			1			
Grayling (near)(13)	557	130	Apr-Sept	502	430	
	450	133	Apr-July	410	337	
MADISON RIVER	1000	126	A G .	1060	70/	
McAllister (near)(14)	1000 810	136 138	Apr-Sept Apr-July	1063 844	734 587	
GALLATIN RIVER	010	130	Apr-Jury	044	707	
Gateway (near)	645	140	Apr-Sept	664	461	
	550	140	Apr-July	572	393	

⁽¹¹⁾ Adjusted for storage in Lima Reservoir.

⁽¹²⁾ Adjusted for storage in Clark Canyon Reservoir.

⁽¹³⁾ Adjusted for storage in Hebgen Lake.

⁽¹⁴⁾ Adjusted for storage in Hebgen and Ennis Lakes.



STREAMFLOW FORECASTS		THIS YEAR			PAST RECORD		
	FORE	CAST	FORECAST	THOUSAND A	CRE FEET		
BASIN, STREAM and/or FORECAST POINT	Thousand Acre Feet	Percent of Average	PERIOD	Last Year	Average		
HYALITE CREEK	-						
Bozeman (near)(15)	50.5	135	Apr-Sept		37.4		
	44.4	137	Apr-July		32.5		
GALLATIN RIVER							
Logan (at)	695	147	Apr-Sept		473		
	610	152	Apr-July		401		
MISSOURI RIVER							
Toston (at)(16)	3000	143	Apr-Sept	3114	2105		
	2680	146	Apr-July	2748	1836		
SHEEP CREEK	06.0	116			10.4		
White Sulphur Springs (near)	26.8	146	Apr-Sept		18.4		
CINY DIVIDE	23.5	147	Apr-July		16.0		
SUN RIVER	705	117	A C t-		(0)		
Gibson Dam (at)(17)	705 650	117 117	Apr-Sept	555	604 555		
BELT CREEK	050	117	Apr-July	513	333		
Monarch (near)	160	147	Apr-Sept		109		
nonarch (hear)	150	150	Apr-July		100		
MISSOURI RIVER	150	130	npr sury		100		
Fort Benton (at)(18)	4600	138	Apr-Sept		3321		
1010 30110011 (00) (10)	4000	141	Apr-July		2834		
TWO MEDICINE CREEK			r-F J				
Browning (near)(19)	295	115	Apr-Sept		256		
	285	116	Apr-July		245		
BADGER CREEK							
Browning (near)	151	114	Apr-Sept		133		
	132	114	Apr-July		116		
CUT BANK CREEK							
Cut Bank (at)	143	119	Apr-Sept		120		
	132	119	Apr-July		111		
MARIAS RIVER							
Shelby (near)(20)	690	114	Apr-Sept	646	604		
	650	112	Apr-July	601	581		

⁽¹⁵⁾ Adjusted for storage in Middle Creek Reservoir.

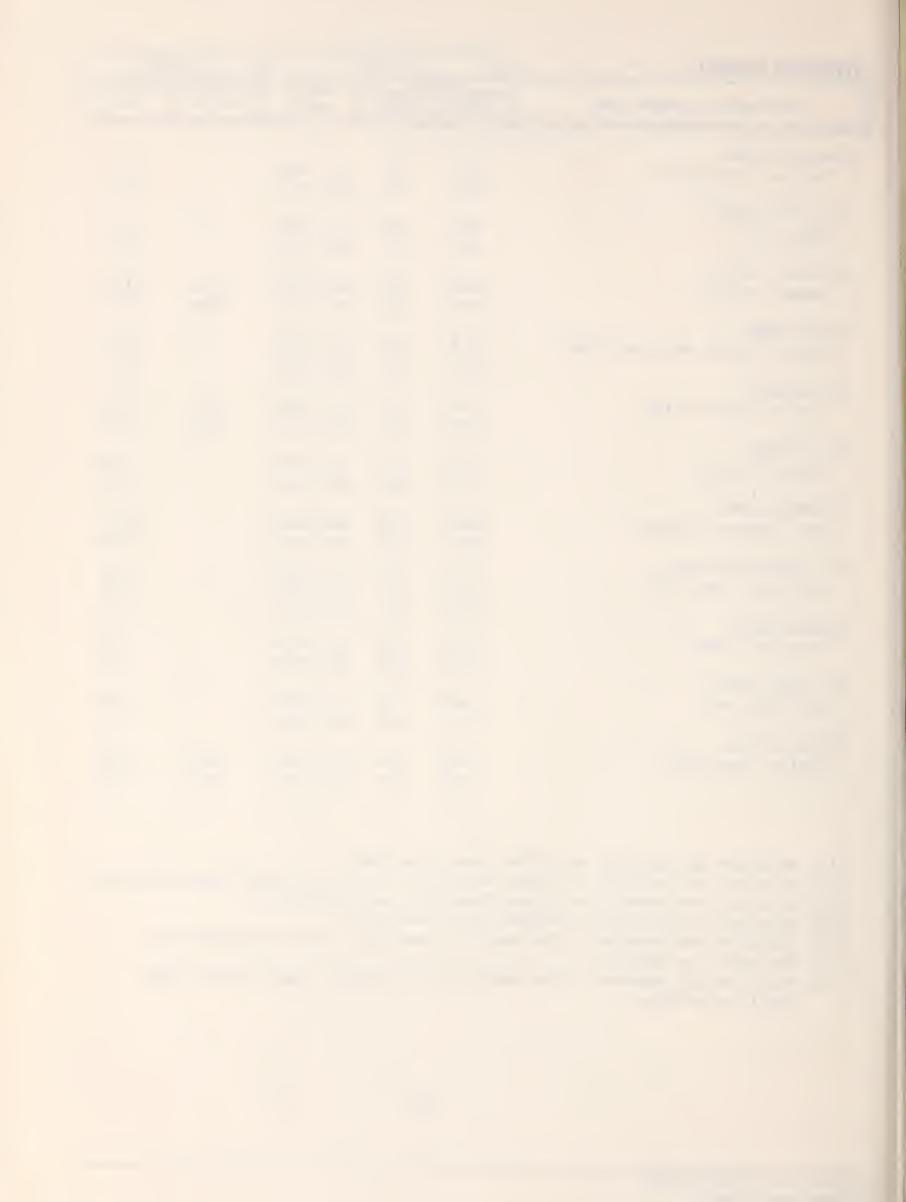
⁽¹⁶⁾ Adjusted for storage in Hebgen and Ennis Lakes and Clark Canyon Reservoir.

⁽¹⁷⁾ Adjusted for storage in Gibson Reservoir and diversions.

⁽¹⁸⁾ Adjusted for storage in Canyon Ferry Reservoir.

⁽¹⁹⁾ Adjusted for storage in Two Medicine Reservoir and diversions into Two Medicine Canal.

⁽²⁰⁾ Adjusted for storage in Two Medicine, Four Horns, Lake Frances and Swift Reservoirs.



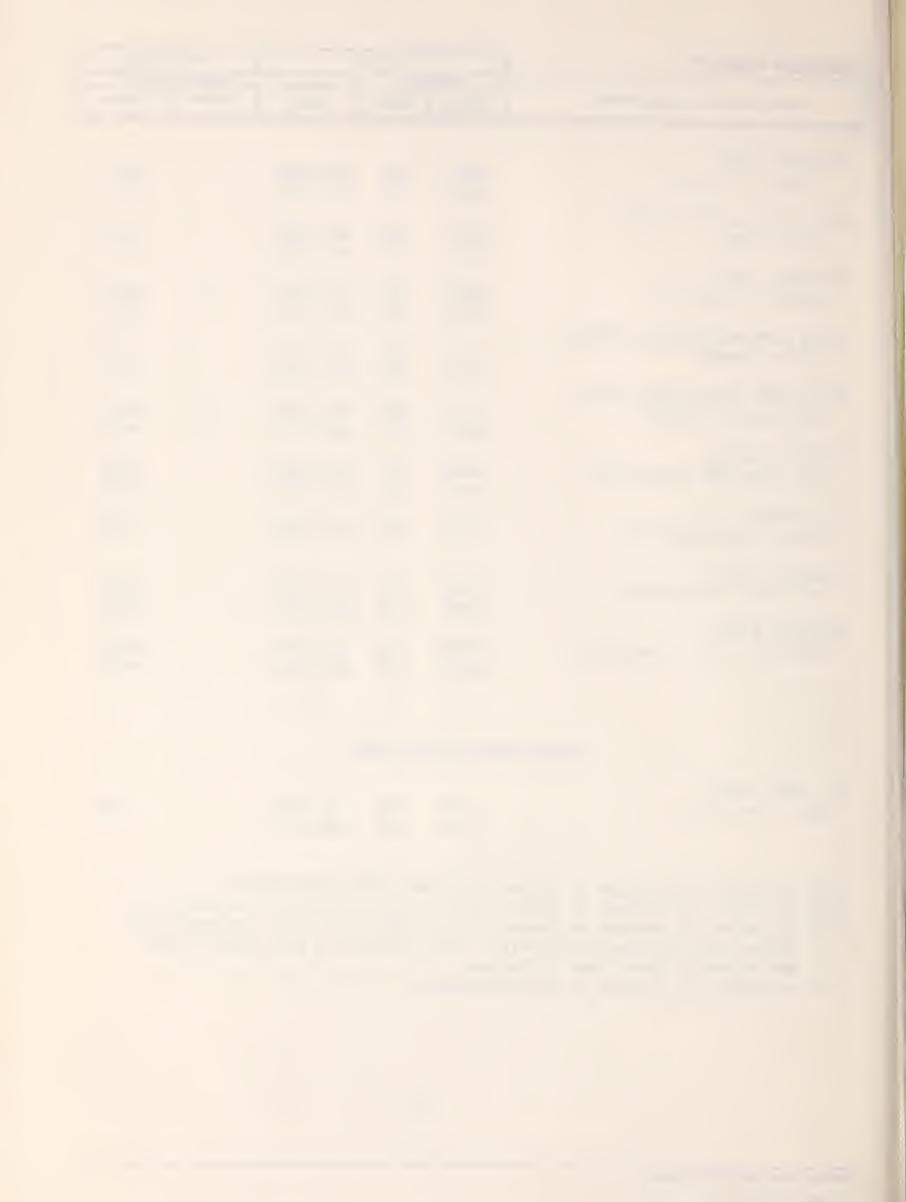
STREAMFLOW FORECASTS		THIS YEAR			PAST RECORD	
	FOR	ECAST	FORECAST	THOUSAND ACRE FEET		
BASIN, STREAM and/or FORECAST POINT	Thousand Acre Feet	Percent of Average	PERIOD	Last Year Ave	rage	
MICCOURT DIVER						
MISSOURI RIVER	5440	135	Ann Cont	<i>l</i> . 0	26	
Virgelle (at)(21)	4800	137	Apr-Sept Apr-July	40 35		
SOUTH FORK JUDITH RIVER	4000	137	Apr-Jury	33	11	
Utica (near)	18.2	146	Apr-Sept	12	.5	
Olica (near)	17.2	147	Apr-July		.7	
MISSOURI RIVER	17.2	147	Apr-3dry	11	• /	
Landusky (near)(21)	6000	134	Apr-Sept	/1/1	84	
Banddsky (near) (21)	5300	136	Apr-July		89	
NORTH FORK MUSSELSHELL RIVER	3300	130	mpr oury	30	0)	
Delpine (near)	7.4	134	Apr-Sept	5	.5	
belpine (near)	6.4	136	Apr-July		.7	
SOUTH FORK MUSSELSHELL RIVER	• • • • • • • • • • • • • • • • • • • •	130	11 P 1 001)	,	• /	
Martinsdale (above)	57.0	123	Apr-Sept	46	. 2	
imitelinguate (asove)	55.0	125	Apr-July	44		
MISSOURI RIVER					• •	
Fort Peck Dam (below)(22)	5850	135	Apr-Sept	43	12	
(2010 1000 1000 (2010) (211)	5200	136	Apr-July		24	
MILK RIVER						
Eastern Crossing (at)	320	114	Mar-Sept	2	81	
9 ()			•			
MISSOURI RIVER						
Wolf Point (near)(22)	6300	134	Apr-Sept	46	83	
	5650	135	Apr-July	41	68	
MISSOURI RIVER						
Williston, N.D. (near)(29)	15100	137	Apr-Sept	109	98	
	13600	138	Apr-July	98	23	
SASKA	rchewan Riv	ER BASI	N			
ST. MARY RIVER						
Babb (near)(30)	530	108	Apr-Sept	4	92	
	460	108	Apr-July	4	27	

⁽²¹⁾ Adjusted for storage in Canyon Ferry and Tiber Reservoirs.

⁽²²⁾ Adjusted for storage in Canyon Ferry, Tiber and Fort Peck Reservoirs.

⁽²⁹⁾ Adjusted for storage in Canyon Ferry, Tiber, Fort Peck, Buffalo Bill, Boysen and Yellowtail Reservoirs. Sum Yellowstone River near Sidney and Missouri River near Culbertson.

⁽³⁰⁾ Adjusted for storage in Lake Sherburne.



YELLOWSTONE RIVER BASIN						
YELLOWSTONE RIVER						
Corwin Springs (at)	2450	130	Apr-Sept	2172	1880	
colwin bprings (ac)	2100	132	Apr-July	1818	1575	
YELLOWSTONE RIVER				2010	1373	
Livingston (near)	2880	135	Apr-Sept		2122	
	2440	138	Apr-July		1769	
BOULDER RIVER						
Big Timber (at)	470	135	Apr-Sept		347	
STILLWATER RIVER	450	137	Apr-July		327	
Absarokee (near)(25)	760	136	Apr-Sept		558	
Mosarokee (mear) (23)	650	137	Apr-July		474	
CLARKS FORK RIVER			P 1 0 0 2)		.,,	
Belfry (near)	750	129	Apr-Sept		582	
	690	130	Apr-July		530	
ROCK CREEK						
Red Lodge (near)	146	138	Apr-Sept	123	106	
VELLOUGEONE DIVED	115	140	Apr-July	96.6	82.1	
YELLOWSTONE RIVER	5350	135	Ann Cont	5 0 2 1	3944	
Billings (at)	4700	138	Apr-Sept Apr-July	5031 4342	3400	
BIG HORN RIVER	4700	130	Aproduly	4342	3400	
St. Xavier (near)(26)	2500	145	Apr-Sept	2105	1719	
	2360	145	Apr-July	2044	1625	
LITTLE BIG HORN RIVER						
Lodgegrass (near)(28)	156	127	Apr-Sept		123	
	140	128	Apr-July		109	
YELLOWSTONE RIVER	0150	1.00	A G .		5050	
Miles City (at)(27)	8150	139	Apr-Sept		5850	
YELLOWSTONE RIVER	7350	142	Apr-July		5177	
Sidney (near) (27)	8300	136	Apr-Sept		6069	
braney (near) (21)	7500	138	Apr-July		5454	

⁽²⁵⁾ Adjusted for storage in Mystic Lake.

⁽²⁶⁾ Adjusted for storage in Buffalo Bill, Boysen, Bull Lake and Yellowtail Reservoirs.

⁽²⁷⁾ Adjusted for storage in Buffalo Bill, Boysen and Yellowtail Reservoirs.

⁽²⁸⁾ Sum Little Big Horn below Pass Creek and Lodgegrass Creek near Wyola.



COLUMBIA RIVER BASIN

KOOTENAI	

Bald Eagle Peak	5700	2/23	143	64.0	47.7	-
Banfield Mountain	5600	2/25	74	26.9	21.0	-
Banfield Mountain Pillow	5600	2/25	SP	22.7	17.0	-
Baree Creek	5500	2/28	120	48.0	37.6	43.5
Baree Midway	4600	2/28	97	38.8	31.3	33.8
Baree Trail	3800	2/27	36	13.0	12.0	8.2
Bear Mountain	5400	2/24	149	61.1	47.3	-
Bristow Creek	3900	2/25	41	14.0	13.3	-
Brush Creek	5000	2/24	37	11.4	10.0	11.7
Brush Creek Timber	5000	2/24	33	10.1	8.9	10.4
Cedar Grove	4100	2/23	33	12.0	13.4	-
Davis Creek	5400	2/22	68	27.6	19.7	-
Fernie	3500	2/26	28	9.2	7.7	8.6
Field	4200	2/28	30	6.6	3.3	5.9
Garver Creek	4250	2/22	36	13.3	10.8	-
Garver Creek Pillow	4250	2/22	SP	10.5	8.4	-
Glacier	4100	2/26	87	28.1	18.2	25.2
Graves Creek	4300	3/02	58	21.4	17.3	17.0
Gray Creek	5100	2/25	69	18.2	8.3	16.0
Halverson Creek	4850	2/24	110	46.2	36.4	-
Hawkins Lake	6450	2/22	78	32.3	21.1	-
Hawkins Lake Pillow	6450	2/22	SP	31.6	18.2	-
Keeler Creek	3300	2/24	37	14.9	16.3	-
Kicking Horse	5400	2/28	54	14.3	8.0	13.4
Kimberley	3800	2/28	29	9.4	4.7	8.0
Lost Soul	4800	2/25	49	17.3	15.2	-
Marble Canyon	5000	2/25	59	16.8	6.0	12.7
Morrissey Ridge	6100	3/01	76	27.9	-	25.6
New Fernie	4100	2/26	52	15.7	11.5	13.6
Poorman Creek	5100	2/23	79	34.6	28.9	-
Poorman Creek Pillow	5100	2/23	SP	32.8	20.1	-
Red Mountain	6000	2/26	60	20.0	13.1	17.4
Sinclair Pass	4500	2/25	27	7.2	3.7	5.6
Stahl Peak	6050	2/26	125	41.1	30.6	-
Sullivan Mine	5100	2/25	51	15.5	8.8	12.4
Upper Elk River	4400	2/25	21	7.1	4.4	7.4
Weasel Divide	5450	3/02	98	37.9	26.4	31.2

SP - Snow pillow observation - water content only.



SNOW		THIS YEAR			PAST RECORD	
DRAINAGE BASIN and/or SNOW COURSE	Date Silo		Snow Depth	Water Content	Water Content (inches)	
NAME		(Inches)	(Inches)	Last Year	Average	
FLATHEAD RIVER						
Bassoo Peak	5150	2/25	39	12.6	8.9	10.2
Beaver Lake	5900	3/06	81	28.8	20.6	20.0
Big Creek	6750	2/24	112	47.8	39.0	39.2
Camp Misery	6400	2/25	120	48.7	40.7	41.0
Desert Mountain	5600	2/26	48	16.2	13.3	14.0
Fatty Creek	5500	2/24	62	23.8	20.5	19.6
Griffin Creek Divide	5150	2/24	39	12.8	10.2	11.3
Gunsight Lake	6300	3/06	122	49.4	35.3	36.0
Hell Roaring Divide	5770	2/25	86	31.3	24.3	27.5
Holbrook	4530	2/28	36	11.8	8.8	9.9
Kishenehn	3890	2/28	33	10.4	6.5	9.3
Logan Creek	4300	2/24	29	8.9	6.7	8.2
Marias Pass	5250	2/23	62	24.0	15.6	16.1
Mineral Creek	4000	2/24	60	20.4	18.7	19.1
Noisy Creek	3600	2/25	12	3.6	6.4	_
North Fork Jocko	6330	2/25	122	47.6	36.4	40.4
Spotted Bear Mountain	7000	3/06	54	16.4	15.8	13.6
Trinkus Lake	6100	3/06	134	49.6	41.2	37.0
Twin Creeks	3580	3/06	43	12.5	12.9	11.3
Upper Holland Lake	6200	3/06	135	51.6	32.0	30.4
CLARK FORK RIVER						
Black Pine	7100	2/25	39	12.5	9.9	11.6
Black Pine Pillow	7100	2/25	SP	12.5	10.1	11.6
Combination	5600	2/25	15	4.2	3.6	_
Copper Bottom	5200	2/26	46	15.9	-	_
Copper Creek	5700	2/26	57	21.6	11.9	13.9
Copper Lake Creek	6100	2/26	82	32.0	-	-
Cotter Mine	6250	2/26	72	28.8	15.6	15.1
Coyote Hill	4200	2/24	32	11.2	10.8	10.2
El Dorado Mine	7800	2/26	71	22.3	16.5	16.8
Fred Burr Pass	8000	3/03	84	28.4	19.3	22.0
Gold Creek Lake	7200	2/26	53	16.2	11.1	12.6
Heart Lake Trail	4800	2/26	80	28.4	15.8	20.2
Hoodoo Basin	6000	2/26	149	56.2	39.3	45.6
Hoodoo Basin Pillow	6000	3/01	SP	48.6	41.5	-
Hoodoo Creek	5900	2/26	141	51.6	37.7	42.5
Intergaard	6450	3/01	31	8.0	5.4	7.0
Lastrant	5250	2/26	100	40.0	21 0	22.3

SP - Snow pillow observation - water content only.

2/26

5250

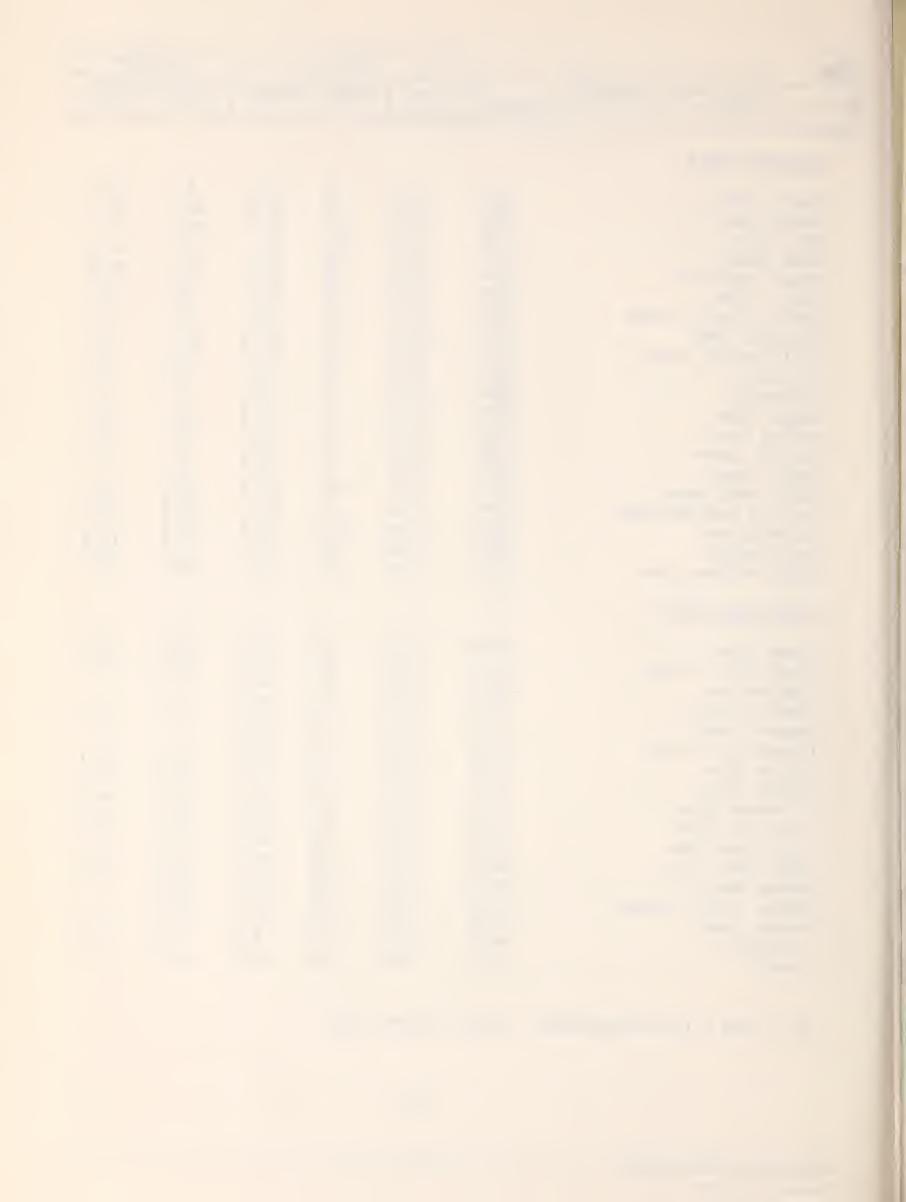
108

40.0

31.9

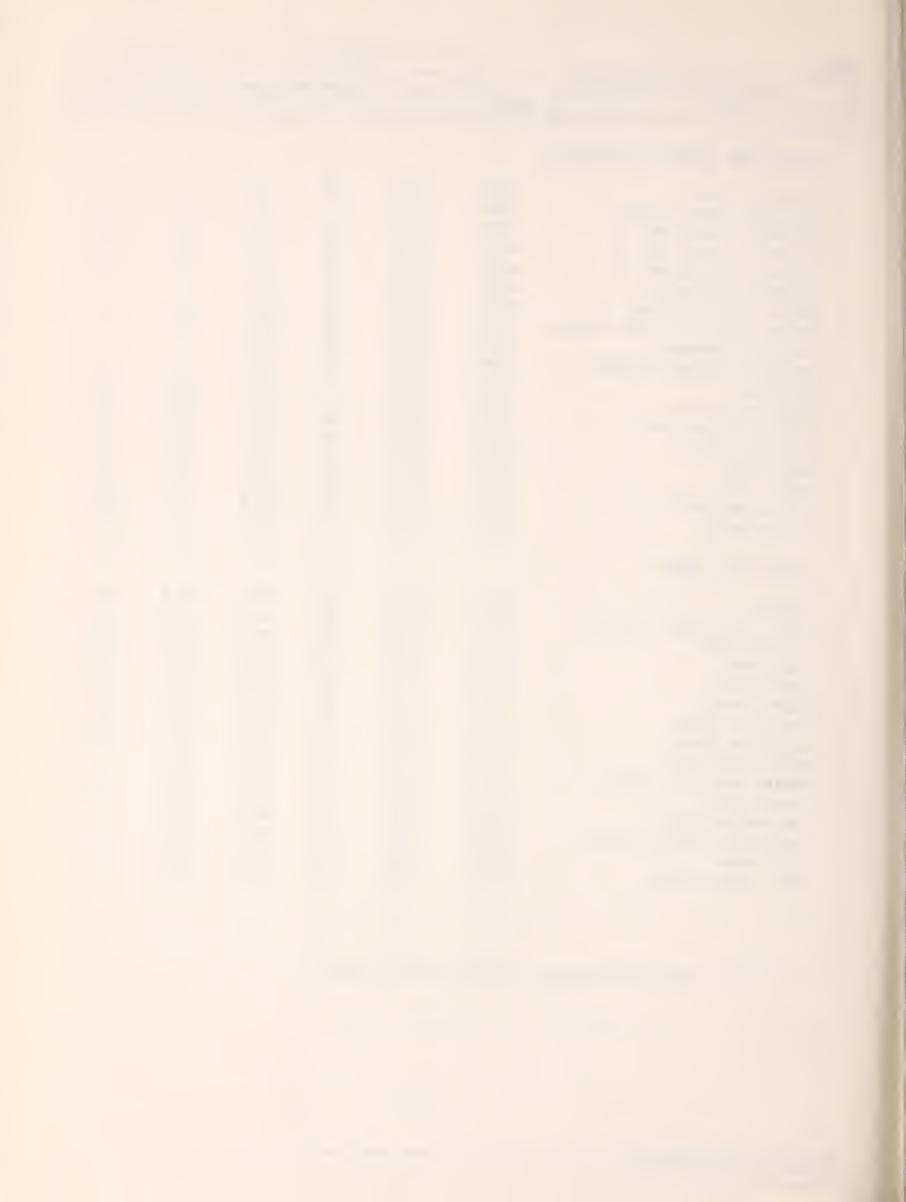
32.3

Lookout



NOW		THIS YEAR	Y	PAST RECORD			
DRAINAGE BASIN and/or SNOW COURSE		Date	Snow Depth	Water Content	Water Content (inches)		
NAME	Elevation	of Survey	(Inches)	(Inches)	Last Year	Average	
CLARK FORK RIVER (Continued)							
Lubrecht Flume	4800	2/24	18	5.1	-	~	
Lubrecht Flume Pillow	4800	2/24	SP	4.3	-	-	
Lubrecht Forest No. 3	5450	2/27	23	6.3	5.5	6.6	
Lubrecht Forest No. 4	4650	2/28	10	2.0	3.5	3.5	
Lubrecht Forest No. 6	4040	2/28	9	2.1	4.0	3.3	
Lubrecht Hydroplot	4200	2/24	16	5.1	-	-	
North Fork Elk Creek	6250	2/24	34	10.4	-	~	
North Fork Elk Creek Pillow	6250	2/24	SP	10.7	10.2	-	
Peterson Meadows	7200	3/02	3 8	10.9	-	-	
Peterson Meadows Pillow	7200	3/02	SP	10.8	-	-	
Red Lion	7100	3/03	54	15.2	11.6	13.7	
Skalkaho Summit	7260	2/23	71	26.2	20.6	22.8	
Slide Rock Mountain	7100	2/24	44	15.4	9.2	12.2	
Southern Cross	6500	3/01	20	5.7	4.2	6.0	
Storm Lake	7780	3/02	47	13.0	9.0	11.2	
Stuart Mill	6500	3/01	19	5.4	4.5	5.8	
Stuart Mountain	7400	2/26	91	34.2	-	26.6	
TV Mountain	6800	2/25	65	21.4	17.7	15.0	
BITTERROOT RIVER							
Ambrose	6480	2/25	43	12.2	8.8	11.5	
East Fork Ranger Station	5400	3/01	26	6.4	5.0	6.3	
Gibbons Pass	7100	2/23	72	26.8	18.8	19.5	
Lolo Pass	5230	2/25	95	32.4	20.5	29.0	
Lost Horse	5940	3/01	97	36.6	27.5	28.0	
Moose Creek	6200	2/26		19.4	13.8	14.2	
Nez Perce Camp	5680	2/24	46	15.2	12.6	12.7	
Nez Perce Pass	6570	2/24	51	16.6	13.6	13.8	
Saddle Mountain	7940	3/01	84	28.8	21.4	21.7	
Saddle Mountain Pillow	7940	3/01	SP	32.5	21.8	-	
Savage Pass	6600	2/24		28.3	19.8	24.9	
Twelvemile Creek	5600	3/02	69	24.6	18.9	-	
Twelvemile Creek Pillow	5600	3/02	SP	20.3		-	
Twin Lakes	6510	3/02	120	45.2	33.8	37.2	
Twin Lakes Pillow	6400	3/02	SP	45.6	35.3	-	

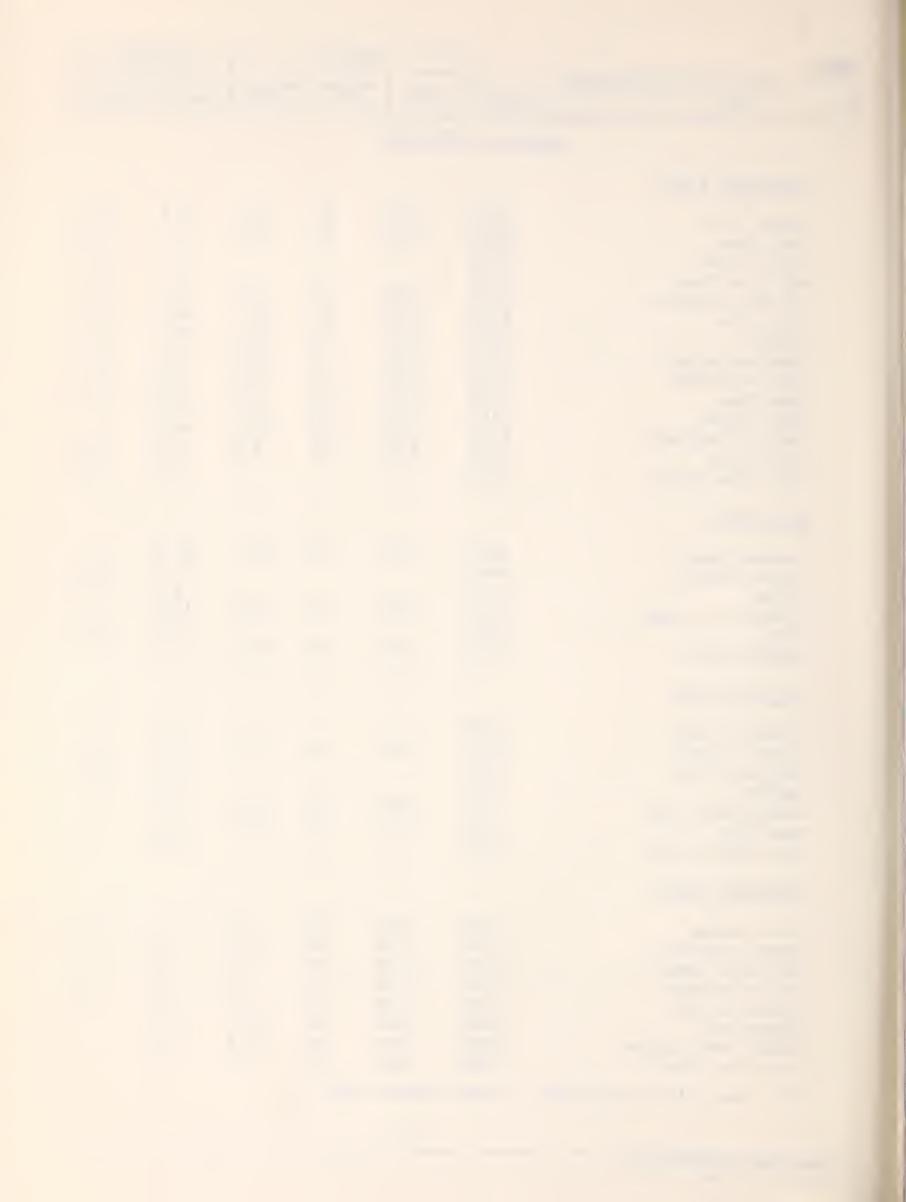
SP - Snow pillow observation - water content only.



SNOW		THIS YEAR	PAST RECORD				
DRAINAGE BASIN and/or SNOW COURSE		Date	Snow Depth	Water Content	Water Content (inches)		
NAME	Elevation	of Survey	(Inches)	(Inches)	Last Year	Average	

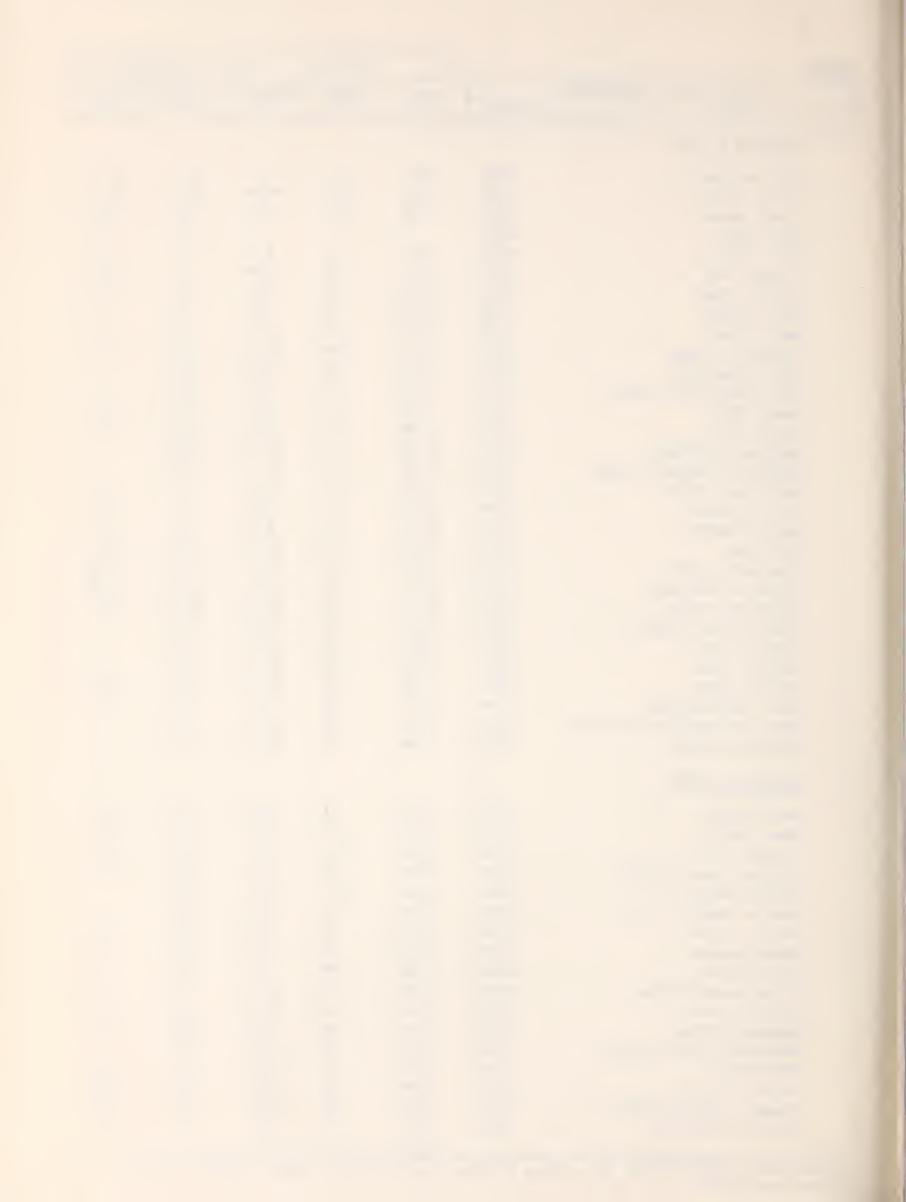
MISSOURI RIVER BASIN											
BEAVERHEAD RIVER											
Bloody Dick	7600 6800	2/25 2/24	45 45	12.2 13.3	8.8 6.5	9.2					
Camp Creek Carter Creek	7400	2/24	43	13.3	0.5	7.8 3.8					
Dad Creek Lake	8400				11.1	9.7					
Elk Horn Springs	7800	3/02	37	9.8	8.1	8.4					
Gold Stone	8100	2/25	56	17.1	12.4	12.2					
Kilgore	6200	2/26	47	15.6	10.5	8.3					
Lakeview Canyon	6930	3/02	53	16.2	5.8	9.7					
Lakeview Ridge	7400	3/02	44	13.0	5.5	8.5					
Lemhi Pass	7480	2/24	34	9.4	5.2	6.9					
Lemhi Ridge	8100	2/24	42	11.4	5.8	-					
Sawtelle Mountain	8715	2/25	108	39.5	26.0	-					
Trail Creek	7090	2/24	33	9.0	4.8	6.3					
White Pine Ridge	8850				3.4	4.0					
RUBY RIVER											
Branham Lakes	8850	2/25	90	33.1	26.9	-					
Clover Meadow	8600				14.8	12.5					
Divide	7900				9.3	8.2					
Middle Mill Creek	7850	2/25	59	19.4	15.4	-					
Notch	8500	0./05	0.0	10.5	15.6	10.8					
Smuggler Mine	696 0	2/25	39	10.5	9.6	-					
BIG HOLE RIVER											
Abundance Lake	8800				16.8	15.9					
Calvert Creek	6450	2/26	43	12.3	9.6	-					
Darkhorse Lake	8600				25.4	22.5					
Foolhen	8280	0 /05	, ,	11 /	14.8	14.5					
Jahnke Lake Trail	7200	2/25	44	11.4	7.5	-					
Mudd Lake Slag-A-Melt Lake	7650 8750	2/26	65	22.4	16.2 25.8	_					
Stag-A-Piett Lake	0750				23.0						
JEFFERSON RIVER											
Berry Meadow	7300	3/01	29	7.6	-	6.7					
Copper Mountain	7700	2/28	38	10.6	7.6	8.4					
Nez Perce Creek	6500	2/28	14	3.7	4.1						
Picnic Grounds	6500	3/01	15	3.6	3.6	4.0					
Pipestone Pass	7200	2/22	16	3.7	2.0	4.3					
Rocker Peak	8000	3/01	56	17.9	12.4 11.2	-					
Rocker Peak Pillow Uncle Sam Gulch	80 0 0 65 0 0	3/01 3/01	SP 28	15.9 7.2	6.3	-					
oncre Sail Gureii	0,000	3/01	20	1 . 4	0.0						

SP - Snow pillow observation - water content only.



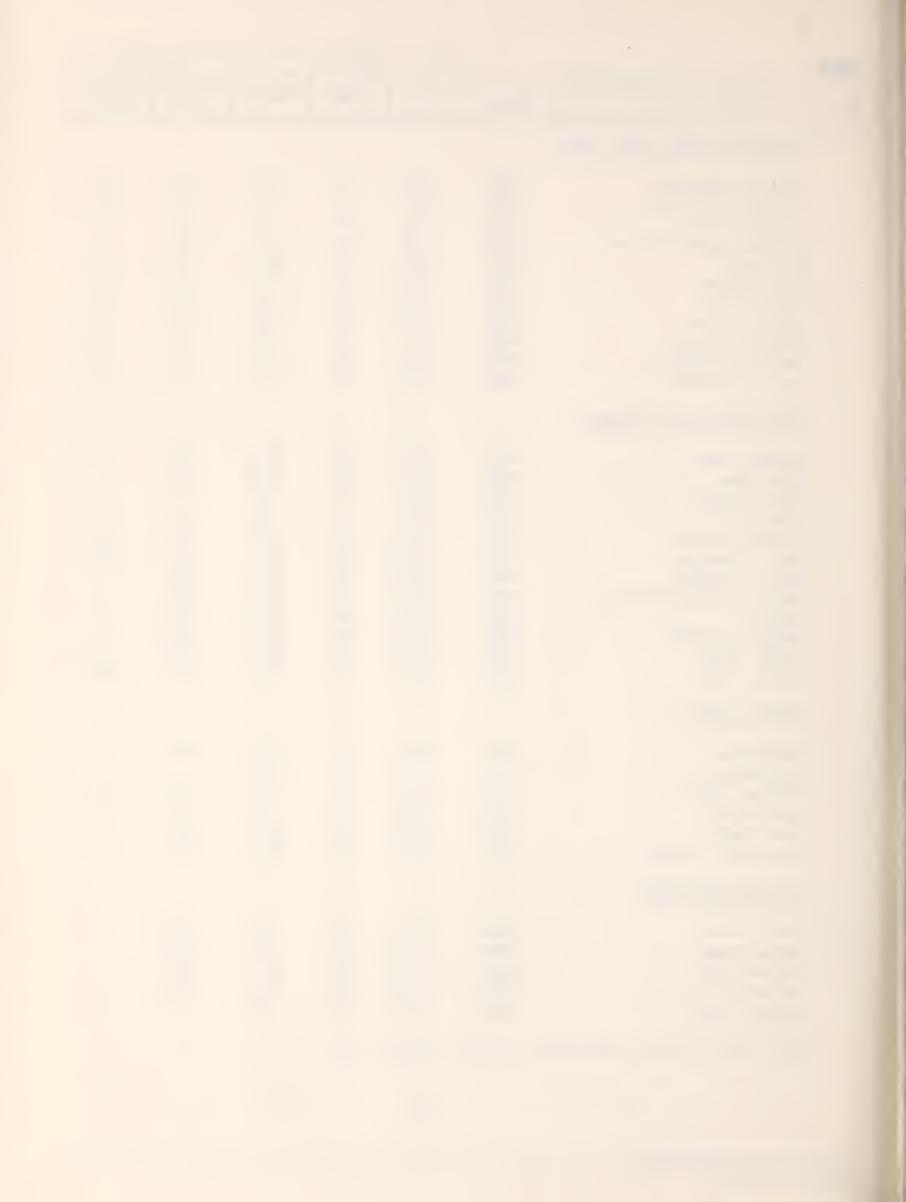
SNOW			THIS YEAR		PAST RECORD		
	DRAINAGE BASIN and/or SNOW COURSE	Date	Snow Depth	Water Content	Water Conte	ent (inches)	
	NAME	Elevation	of Survey	(Inches)	(Inches)	Last Year	Average
MAD	ISON RIVER						
Big	Springs	6500	2/25	75	26.2	18.6	17.9
	ck Canyon	7850	2/24	106	39.6	26.8	28.5
	ck Moose	8125	2/24	119	47.6	33.8	34.0
	1 Road	8050	_,		1,,,,	10.9	8.4
	r Mile	6900	2/22	32	8.0	6.3	6.6
	gen Dam	6550	2/27	43	12.6	9.3	10.0
	and Park	6315	2/25	66	20.7	15.1	13.9
	k Creek	7500	2/23	23	6.6	4.4	4.8
	e Creek	6100	3/02	39	11.4	6.6	-
	ham Springs	7650	2/24	100	37.4	27.8	27.8
	n Mountain	8760	2/24	62	20.0	13.5	_
	n Mountain Pillow	8760	2/24	SP	15.5	10.5	_
	er Twin	7900	2/22	67	23.1	18.4	15.6
	ky Dog	6900	2/24	86	32.0	22.2	21.1
	ison Plateau	7750	2/24	74	26.3	18.0	
	ison Plateau Pillow	7750	2/24	· SP	27.8	20.9	-
	idian Creek	7000	3/03	43	13.4	7.1	_
	ris Basin	7500	2/28	45	13.4	5.0	9.2
	th Meadow	7500	2/22	32	8.0	5.1	6.2
	Road	7250	2/24	93	34.8	25.6	24.3
	chers Cabin	8000	2/24	98	37.8	27.4	29.0
	omageton Park	7150	2/27	53	16.2	11.2	12.8
	tinel Creek	8300	2/27	81	26.3	18.5	20.3
	p Bogus Divide	7600	3/02	61	20.4	11.7	20.5
	ghee Pass	7000	2/25	60	18.7	9.9	-
	ee Creek	8000	3/03	62	21.0	13.1	_
-	ley View	6500	2/25	65	22.2	10.1	13.3
	t Yellowstone	6700	2/27	52		9.3	9.8
	t Yellowstone Pillow	6700	3/03			6.6	-
	skey Creek	6800	2/24	71	24.6		-
	LATIN RIVER						
	h Falls	7350	2/24	41	12.8	13.4	10.0
	r Basin	8150	2/25	75	25.1	22.0	16.8
	dger Bowl	7250	2/26	107	35.5	30.7	22.5
	dger Bowl Pillow	7250	·		32.4		21.8
	rot Basin	9000	3/02	115	45.2	30.1	-
	rot Basin Pillow	9000	3/02	SP	32.1	22.8	17.0
	ils Slide	8100	2/24	66	23.0	24.3	17.9
	d Meadow	6600	2/24		11.2		7.8
	k Creek	6860	2/24	34	9.3	10.2	8.7
	k Creek Pillow	6860	2/24	SP	10.4	9.3	7.1
	tle Park	7400	2/25	61	18.3	15.3	12.6
_	nard Creek	6210	2/26	66	20.5	20.8	14.2
	nard Creek Pillow	6210	2/26	SP	11.9	13.6	9 6
	World wer Falls	6700 8100	2/27	44	12.6	12.4	8.6
	wer ralls Wer Falls Pillow	8100	2/24	7 4 SP	27.8 22.2	28.3	20.8
	nty-One Mile	7150	2/24 2/27	69	22.7	24.5 12.4	18.8 15.4
Twe	ncy-one rifte	/150		. 09	22.1	12.4	13.4
			-17-				

Average based on 1953-67 period. SP - Snow pillow observation - water content only.



WOW			THIS YEAR		PAST RECORD		
DRAINAGE BASIN and/or SNOW COURSE		Date of Survey	Snow Depth	Water Content (Inches)	Water Conte		
NAME	Elevation	or survey	(Inches)	(mcnes)	Last Year	Average	
MISSOURI RIVER (Main Stem)						
HIDDOOKI KIVIK (IMIK Beek	<u>./</u>						
Boulder Mountain	7950	2/24	65	23.0	16.8	13.4	
Chessman Reservoir	6200	3/03	12	3.6	0.0	3.4	
Deadman Creek	6450	2/26	44	11.8	13.6	9.7	
Deadman Creek Pillow	6450	2/26	SP	10.4	11.7	-	
Elk Peak	8000	2/25	56	18.3	15.3	13.4	
Grasshopper	7000	2/25	20	5.2	4.9	4.3	
Kings Hill	7500	2/28	52	14.0	18.1	10.7	
Stemple Pass	6600	3/03	41	12.0	5.9	9.2	
Ten Mile Lower	6600	3/01	25	6.6	3.6	6.0	
Ten Mile Middle	6800	3/01	44	11.5	6.4	8.8	
Ten Mile Upper	8000	3/02	50	15.7	9.2	11.5	
SUN-TETON-MARIAS RIVERS							
Badger Pass	6900	3/06	122	48.0	33.0	31.8	
Blue Lake	5900	3/06	84	32.4	21.6	- -	
Cabin Creek	5200	2/27	27	8.1	3.8	7.0	
Five-Bull	5700	3/06	46	13.9	6.7	5.7	
Freight Creek	6000	3/06	44	15.2	11.0	14.1	
Goat Mountain Mount Lockhart	7000 64 0 0	2/28	43	14.7	7.6 18.2	10.2	
Mount Lockhart Pillow	6400	3/03	78 SP	26.8 24.2	16.1	-	
Waldron	5600	3/0 3 3/ 03	44	17.6	7.8	_	
Waldron Pillow	5600	3/03	SP	15.7	9.6	_	
Wrong Creek	5700	2/25	51	17.6	10.8	14.3	
Wrong Ridge	6800	2/26	71	24.1	15.4	19.4	
JUDITH RIVER							
Avalanche	7100	3/01	68	19.6	24.0	-	
Big Snowy	7150	3/01	68	19.2	-	-	
Crystal Lake	6100	3/01	52	13.5	15.8	11.1	
Rock Creek	5600	3/01	29	7.4	9.4	7.5	
Spur Park	8000	2/26	70	2 2.8	21.6	16.5	
Spur Park Pillow	8000	2/26	SP	21.9	22.7	-	
MUSSELSHELL RIVER							
Daisy Peak	7600	2/24	35	10.4	9.8	-	
Eagle Creek	7000	2/22	43	13.1	15.8	-	
Forest Lake	6400	2/22	38	11.1	12.5		
Haymaker	8050	2/23		11.0		-	
Johnson Park	6450	2/24	26	7.4	6.6	-	

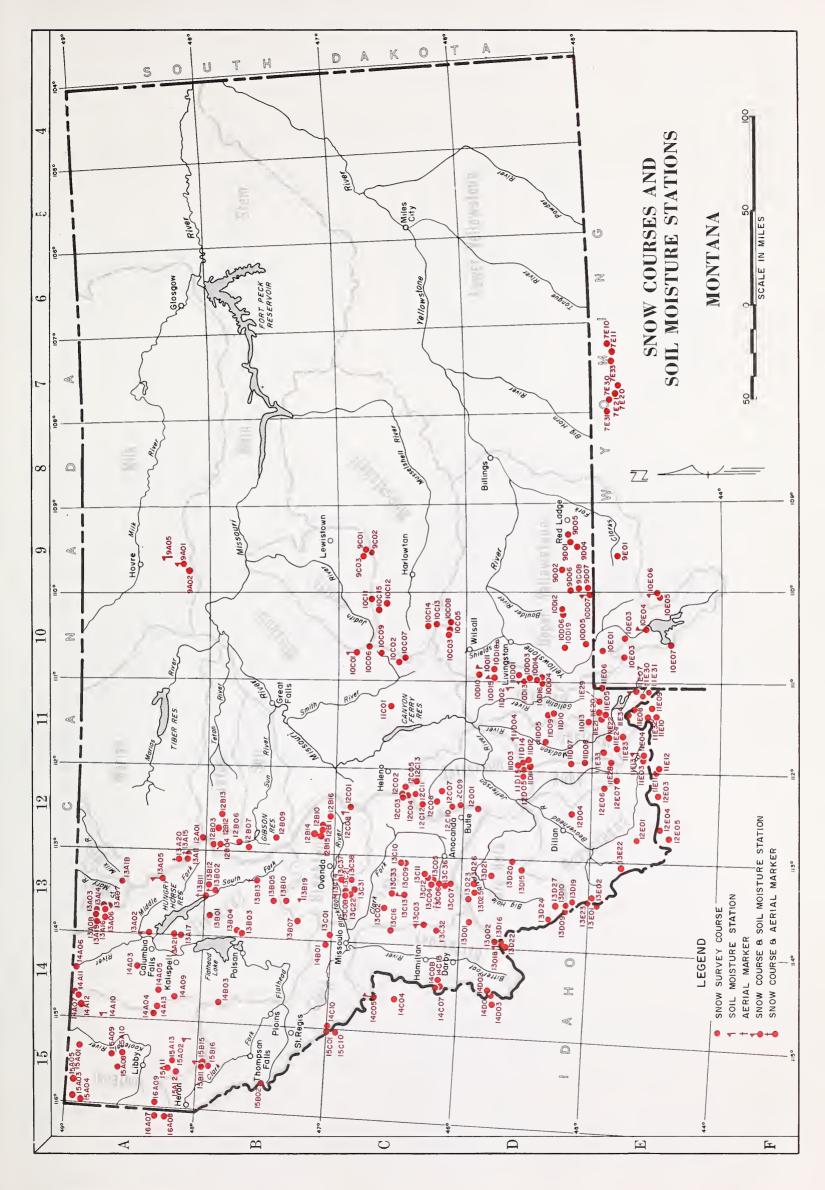
SP - Snow pillow observation - water content only.



SNO	DW ·		THIS YEAR	Y	PAST RECORD			
	DRAINAGE BASIN and/or SNOW COURSE		Date	Snow Depth	Water Content	Water Conte	ent (inches)	
	NAME	Elevation	of Survey	(Inches)	(Inches)	Last Year	Average	
	MITH DIVED							
	MILK RIVER							
	Bear Paw Ski Area	5200	3/03	34	9.6	8.6	-	
	Cypress Park C	4000	2/26	24	7.3	6.6	4.0	
	Elkwater Lake A	4100	2/25	10	2.4	2.9	2.0	
	Rocky Boy	4700	3/03	26	7.0	6.0	4.2	
	Rocky Boy Pillow	4700	3/03	SP	9.2	4.4	-	
	Val Marie D	2700	2/23	15	3.3	1.5	1.3	
	Wildhorse B	3450	3/02	13	3.8	1.3	1.5	
	ST. MARY RIVER							
	Hudson Bay Divide	5800	2/24	62	21.3	13.5	16.3	
	CACKARCHEHAN (DOM) DIVER							
	SASKATCHEWAN (BOW) RIVER							
	Bow River #1	5100	2/23	33	8.9	4.6	-	
	Chateau Lawn #8	5700	2/23	. 41	11.7	6.1	-	
	Mirror Lake #6	6600	2/23	39	11.8	5.8	-	
	Mount Eisenhower #10	5000	2/23	29	7.3	2.8	-	
	Upper Pipestone #2	5300	2/24	36	9.4	4.6	-	
	UPPER YELLOWSTONE RIVER							
	Bald Ridge	7500	2/23	37	10.9	13.0	10.1	
	Camp Senia	7890	2/26	25	5.2	4.6	4.8	
	Canyon	7750	3/01	60	17.0	12.6	13.4	
	Cooke Station	8150	2/23	69	23.5	21.2	15.8	
	Crevice Mountain	8400	2/22	38	11.0	8.6	7.2	
	East Entrance	7000	3/01	48	13.5	8.0	9.4	
	Fisher Creek	9100	2/23	122	47.3	36.2	29.6	
	Fisher Creek Pillow	9100	2/24	SP	43.5	31.6	-	
	Grizzly Peak	8400	3/01	55	14.2	12.1	13.1	
	Independence	8000	2/27	73	24.3	13.8	14.1	
	Lake Camp	7850	3/01	44	11.8	5.4	8.2	
	Lupine Creek	7300	2/27	44	12.9	8.3	9.3	
	Mill Creek	7500	3/01	53	15.1	13.4	-	
	Monument Peak	9000	2/27	92	31.1	19.4	20.0	
	Northeast Entrance	7 40 0	3/01	40	11.4	9.0	7.6	
	Northeast Entrance Pillow	7350	2/28	SP	10.9	9.5	-	
	Porcupine Ranger Station	6500	2/23	24	6.5	8.4	6.3	
	Sacajawea	6550	2/26	57	16.4	19.0	10.8	
	South Fork Shields	8100	2/23	67	23.7	25.8	19.0	
	Sylvan Pass	7100				10.5	.11.6	
	Thumb Divide	7900	2/27	78	26.7	13.8	19.0	
	Timberline Creek	8850	2/26	52	13.8	11.0	11.5	
	West Rosebud	7500	3/03	42	12.9	-	8.8	
	White Mill	8700	2/23	98	35.9	26.3	20.8	

SP - Snow pillow observation - water content only.





INDEX to MONTANA SNOW COURSES and SOIL MOISTURE STATIONS

11.6

¥4	By By	~ ~ ~ ~ .				c	2 2 2	1 9	121			1	9	1 1 1 9			1 0	-	C AND	rces	
Money	Dates 1	1,2,3,4,5	1,2,3,4,4,5,5,5,5,5,5,5,5,5,5,5,5,5,5,5,5,5			Money Mark	Monthly Menthly	Monthly Monthly	Monthly Menthly Monthly	Monthly		Monthly	Monthly	Monthly Monthly Monthly Monthly	Monthly Monthly	Monthly Monthly	Monthly Monthly		April 1, 199 1.	MSU Agricultural Experiment Station U. of M. School of Perestry Opertment of Emergy, Mines & Resources U. S. Bureau of Sport Fisheries & Wildlife Private Comperator Soil and Mater Commervation District	
Range	Began	1961 1940 1967	1961 1937 1938 1960 1965 1961 1960		SVO	7901	1964	1956	1965 1963 1964	1962		1962	1966	1966 1956 1965 1963	1963 1963	1969	1960			ral Expessol of For Energy, of Sport rator	
	Ranga	19E 12E 11E	128 148 108 68 108 188 168		M	3ASIN	25W 29W	19W 14W	15W 15W 17W	19W 24W	BASIN	24	× 50	68 58 68 58	8E 74	16E 16E	7E 14E	;	es the snow survey as follows;	gricultur M. Schoo tment of Bureau ta Cooper	
	Twp.	78	78 88 78 98		E S	VER 1	34N 26N	31N 30N	8N 17N 6N	2S 10N		148	138	1N 2S 4S 4S 11S	13E 13N	29N 29N	2 S 8	9 ;	repruar survey		
	Sec.	inuad) 26 21 21 6	10 10 10 10 10 10		STUR	COLUMBIA RIVER BASIN	1 10 10	24	26 21 30	4	MISSOURI RIVER	23	34	25 18 10 1	34	21 21	32	LEGEND	the snow	ce 7. 8. 9. 10. 110. 111. 112.	
	Elav.	R (cont 8400 7850 7500	8800 7400 6500 6550 8100 8850 7500		MOLS	OLUMI	3000	5600	7100 4030 7260	7100	ISSOU	6700	9 9 9	7250 4856 6860 7150	7420 6350	3950 3950	6020		mak mak	arvi	
	Number	RIVE 9005 0006 0019	10012 10007 10007 10010 10008 9004 9002		SOIL MOISTURE STATIONS	Ö M	14A10M 15A02M	13A02M 13A05M	13C13M 13B19M 13C03M	13D18M 14C05M	Z	11E13M	11E07M	10015M 11D02M 10013M 11E06M	10 STEM 10 COLH 12 COBM	9A05M 9A01M	10011M 10007M		Agency that	servatio ervice al Surve Company ervice Park Se	
		VSTONE	a da		S	< E R	L.	×	RIVER	RIVER		RIVER	ER	> E	ER MA		RIVE		er to Ag	U. S. Soil Conservation S U. S. Forest Service U. S. Geological Survay Hontann Power Company U. S. Indian Service U. S. National Park Servi	3
Droingn Brein	& Snow Coorse	UPPER YELLOW Crizzly Peak Indopendence Nill Greek	Monument France Northean Entrance Porcupin 8.5. Sacajawa South Fork Shields Timberlin Greek West Romebud	*		KOOTENAL RIV	Murphy Lake 8.S. Raven R.S.	Cesert Mountain Marias Pass	CLARK FORK Black Pine Black Pine Seeley Lake Skalkaho Summit	BITTERROOT R Gibbons Pass Lolo Pass		BEAVERHEAD RIVER Lakevier	MADISON RIVER West Yellowstone	GALLATINE RIVER Bridger Bowl Colloge Site Lick Greek Twenty-One Mila	MISSOURI RIV Kings 1111 Stemple Pass	MILK RIVER Beaver Creek Bocky Boy	YELLOWSTONE Battla Ridge Northeast Entrance	:	1) Numerals 1.5.3.4.3.35.0 reter and Juna 1.	1. U.S. 2. U.S. 3. U.S. 4. Montan 5. U.S. 6. U.S.	3
Mook	By 2/		1.12		-			2213	2,212,2	2 2 1,3,6				221317	- 2 2 (× - C E E E E	n			1 1 2 2 2 1 1 2 2 2 2 1 2 2 2	i de
Meauring	Dotes 1/	અ. અ		6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	3,4,5	3,4,5 2,3,4,5,5 <u>1</u> 2,3,4,5 1,2,3,4,5 1,2,3,4,5	5,4,5 5,4,5 5,5	1,2,3,4,5 3,4 2,3,4,5 2,3,4,5	2 ย ย ย ย 4 4 4 4 4 4 ก ก ก ก ก ก ก	2,3,4,5 1,2,3,4,5 3,4,5	1,2,3,4,5,56 3,4,5 11,2,3,4,5,56 1,2,3,4,5,56	1,2,3,4,5,5½,6 1,2,3,4,5,5½,6 1,2,3,4,5,5½,6 1,2,3,4,5,5½,6	2,3,4 1,2,3,4,5,54,6 3,4,5 1,2,3,4,5	1,2,3,4,5 1,2,3,4,5 1,2,3,4,5 3,4,5 3,4,5	3,4,5 1,2,3,4,5 3,4,5 3,4,5	1,2,3,4,5 1,2,3,4,5 1,2,3,4,5 1,2,3,4,5 1,2,3,4,5 1,2,3,4,5	1,2,3,4,5	ายยยยยย เจ้าจ้าจ้า เจ้าจ้าจ้า	3,4,5	1,2,3,4,5,5\\ 3,4,5,5\\ 3,4,5,5\\ 3,4,5,5\\ 3,4,5,5\\ 3,4,5,5\\ 5,4,5,5\\ 6,6,5,5\\ 6,6,5,5\\ 6,6,5,5\\ 6,6,5,5\\ 6,6,5,5\\ 6,6,6,6,6,6,6,6,6,6,6,6,6,6,6,6,6,6,6	
Record	Вадоп	1948 1967 1948	1967 1963 1963 1967 1967	1963 1969 1963 1963 1969 1969		1962 1966 1967 1941 1938			1965 1968 1965 1961 1965			1935 1935 1964 1963				1969 1934 1941 1934 1935		1948 1948 1969 1969 1949	1966 1941 1966	1963 1961 1937 1966 1935	
	Ranga	15W 15W 15W	38 644 344 344 344 344 344 344	11W 14W 16W 13W 15W 15W	17W	28 28 28 28 28 28 28 28 28	2W 2W	3E 1E 1E 2W	38 38 38	35 11 55 58	35 36 37 37 38	6E 6E 3E 7E	6E 2E 5E	16E 3E 5W 8E 11E	8E 10E 5W 8E 12E	11E 8E 16E 7W 6W 6W	11W 11W 10W	100 100 90 100 100 100	17E 18E	10E 18E 15E 9E 14E	1
	Twp, R	10S 10S 10S	48 48 48 118 48	3S 2N 8S 1S 7S 2N 2N	58	N 2 2 N N N N N N N N N N N N N N N N N	N 88	111S 6S 111S 111S	48 148 128 38 108	11.5 12.5 13.5 14.5	58 68 1N 108	58 48 68 1N	38 58 98 118	28N 9N 8N 12N 11N	8N 6N 9N 111N	138 138 138 138 88 88	27N 28N 23N	25N 25N 25N 25N 25N 25N 25N	12N 12N 12N	12N 4N 8S 9S 9S	
	Sec.	9 4 15	28 28 14 17 18 24	34 4 11 24 3	29	8 113 21 10 17	32 21 5	22 13 27 23	12 28 31 33	119 115 34 119	3 25 18	14 22 10 22 19	24 14 26 1	21 22 34 2	10 26 23 119 16	34 22 11 13	25 4 33	13 20 18 17 32 17	24 19 8	20 11 2 22 22 11	
	Elev.	ad) 7480 8100 7090	8850 8600 7900 7850 8500	8800 6450 8600 7200 7650 8250	8750	7300 7700 6500 6500 7200 8000	8050 8050 6900	6550 7500 6100 8760	7900 7750 7000 7500 7150	7600 8000 6700 6800	7350 8150 7250 9000	8100 6600 6860 7400 6210	6700 8100 8500 7150	A 5200 7950 6200 6450 7600 7000	8000 6400 7000 8050	7500 7500 6600 6800	\$ 6900 5900 5200	66000 5700 5700 6800	7100 6100 5600	7500 7890 8150 8400 9100	
	Number	R (continu 13E01 13E23 13E02	11014 11008 12607 111015 12606 12005	13026 13026 13019 13021 13027 13025 13025	-	12007 12009 12010 12006 12001 12011		11E05 11D05 11E22 11E28	11011 11E31 11E23 11D03 11E21			10004 10003 10013 11010 10018		MAIN STEP 9/02 11/01 12/05 10/09 10/01 10/013	10007 10014 13013 10002	1001 10001 9A01 12001 12002 12003	12004 13A15 13A20 12806	12807 12807 12812 12813 12804 12804	9002 9001 9003	10006 ONE RIVER 10005 9001 9007 10005 9506	
Dreiter Bailt	& Snow Coarsa	BEAVERHEAD RIVE Lemhi Pass Lemhi Ridge Trail Creek	RUBY RIVER RUBY RIVER Brahhmu Lakes Clover Headow Divide Middlo Mill Creek Notek	BIG HOLE RIVER Abundance Lake Calvert Greek Darkhorse Lake Foolhee Lake Jahnke Lake Madd Lake Pallande Greek	Slag-A-Molt Lake JEFFERSON RIVER	Berry Meddow Copper Mountain Nez Perro Creek Plenic Crounds Pipentone Pass Rocker Peak	Uncle Sam Gulch MADISON RIVER Call Road Four Mile	Hebgen Dam Jack Greek Lake Greek Lion Mountain	Lover Twin Madison Platesu Meridian Creek North Meadow Poromageron Park	Sentinei vreek Soap Bogus Divide Tepee Greek West Yellowstone Whiskey Greek	GALLATIN RIVER Arch Falls Bear Bear Bridger Bowl Carrot Beain	Devils Siide Hood Meadow Lick Greek Little Park Maynard Greek	New World Shower Falls Taylor Peaks Twenty-One Mile	MISSOUR! RIVER P Bear Pass Ski Ares Boulder Hountdan Chessman Reservoir Ocadann Greek Daisy Peak Eagle Greek	Elk Peak Forest Lake Frohner Headows Crashopper Ilaymaker	Monator Park Kinga IIII Roky Boy Stemple Pasar Ten Mile Lower Ten Mile Widdle	SUN-TETON- MAR 8adger Pass 8lue Lake Cabin Creek	rive blu Preight Greek Gost Mountain Hount Lockhart Waldron Wrong Creek	JUDITH RIVER Avalanche Crystal lake Rock Greek	Spur Park UPPER YELLOWSTO Bald Ridgo Caep Sonta Caoke Station Crovice Mountain Flaher Creek	
Mass	By 2/		7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	t put and put and put (N put)		2 2 2 2 2 2	2 1 2 1	1,2	5.7	1,2	1,22	11.2	1 4 0 0 0 1	2 2 2 2 2 2	71788			~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~		111111111111111111111111111111111111111	-
	Dotes 1/	3,4,5			3.4,5,5%,6	1,2,3,4,5,5 1,2,3,4,5,6 1,2,3,4,5,6 1,4,5,6 1,4,5,6 1,4,5,6 1,4,5,6 1,4,5,6 1,4,5,6 1,4,5,6 1,4,5,6 1,4,5,6 1,4,5,6 1,4,5,6 1,4,5,6 1,4,5,6 1,4,5,6 1,4,5,6 1,4,5,6 1,4,5,6 1,4,5,6 1,4,5,6 1,4,5,6 1,4,5,6 1,4,5,6 1,4,5,6 1,4,5,6 1,4,5,6 1,4,5,6 1,4,5,6 1,4,5,6 1,4,5,6 1,4,5,6 1,4,5,6 1,4,5,6 1,4,5,6 1,4,5,6 1,4,5,6 1,4,5,6 1,4,5,6 1,4,5,6 1,4,5,6 1,4,5,6 1,4,5,6 1,4,5,6 1,4,5,6 1,4,5,6 1,4,5,6 1,4,5,6 1,4,5,6 1,4,5,6 1,4,5,6 1,4,5,6 1,4,5,6 1,4,5,6 1,4,5 1,4,5 1,4,5 1,4,5 1,4,5 1,4,5 1,4,5 1,4,5 1,4,5 1,4,5 1,4,5 1,4,5 1,4,5 1,4,5 1,4,5 1,4,5 1,4,5 1,4,5 1,4,5 1,4,5 1,4,5 1,4,5 1,4,5 1,4,5 1,4,5 1,4,5 1,4,5 1,4,5 1,4,5 1,4,5 1,4,5 1,4,5 1,4,5 1,4,5 1,4,5 1,4,5 1,4,5 1,4,5 1,4,5 1,4,5 1,4,5 1,4,5 1,4,5 1,4,5 1,4,5 1,4,5 1,4,5 1,4,5 1,4,5 1,4,5 1,4,5 1,4,5 1,4,5 1,4,5 1,4,5 1,4,5 1,4,5 1,4,5 1,4,5 1,4,5 1,4,5 1,4,5 1,4,5 1,4,5 1,4,5 1,4,5 1,4,5 1,4,5 1,4,5 1,4,5 1,4,5 1,4,5 1,4,5 1,4,5 1,4,5 1,4,5 1,4,5 1,4,5 1,4,5 1,4,5 1,4,5 1,4,5 1,4,5 1,4,5 1,4,5 1,4,5 1,4,5 1,4,5 1,4,5 1,5 1,5 1,5 1,5 1,5 1,5 1,5 1,5 1,5 1	3,4,5 3,4,5 1,2,3,4,5,5\%,6 1,2,3,4,5	3,4,5	1,2,3,4,5 1,2,3,4,5 1,2,3,4,5 1,2,3,4,5 1,2,3,4,5	2,3,4,5,5%,6 ,2,3,4,5	1,2,3,4,5 1,2,3,4,5 1,2,3,4,5 3,4,5 3,4,5	3,4,5 3,4 ,2,3,4,5,54,6 ,2,3,4,5,54,6	2,3,4,5 1,2,3,4,5 1,2,3,4,5 1,2,3,4,5	1,2,3,4,5 1,2,3,4,5,5,5,6 1,2,3,4,5,5,5,6 3,4,5 3,4,5,5,6	2,3,4,5 2,3,4,5,2,6,5,3,6	3,4,5 3,4,5 3,4,5 3,4,5,3,6 3,4,5,5,5,6	3,4,5,2,5,6 1,2,3,4,5,5,5,6 1,2,3,4,5,5,5,6	ш 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		2 6	,
	Began	1969	1965 1965 1969 1969 1969 1969	1969 1969 1969 1969 1969 1969		1964 1961 1962 1962					1971 1962 1971 1962 1947		1936 1936 1971 1951		1936 1936 1936 1936 1956		1937 1937 1965 1968 1960	1962 1922 1922 1922 1922		1948 1963 965 1935 948 1948	
		ASIN	314 308 308 264 318	328 3388 3388 3388 3388 3388 3388 3388	24W	361 361 361 361 361	25W 14W 22W 13W	22W 24W 14W 17W	19W 17W 15W 17W 16W 15W	151 144 8	96 96 97 98 168 128	13W 12W 27W 27W 27W	13W 14W 15W 15W	15W 14W 13W 14W 17W 16W	13W 13W 13W 18W 19W	18W 18W 17W 19W 23W	23W 24W 19W 23W 23W	14W 17W 16W 16W 16W 16W	BASIN	158 138 228 288 288 288	
COURSES	T* p.	VER B	X X X X X X X X X X X X X X X X X X X	200 N N N N N N S 200 N N N N N N N N N N N N N N N N N N	37N 22N	22 X X X X X 3 2 2 3 2 3 3 3 3 3 3 3 3 3	28 N 26 N 32 N 21 N	37.N 30.N 35.N	28N 25N 25N 26N 26N	0 0 0 N N N N N N N N N N N N N N N N N	15N 15N 15N 18N 18N	68 88 148 148	2 NC 1 NC	13N 101 101 101 101 101 101 101 101 101 10	5N 6N 5N 16N	N N N S N	1 1 2 2 2 2 2 2 2 3 2 3 2 3 2 3 3 3 3 3	35 X X X X X X X X X X X X X X X X X X X		80 80 70 4 8 4 4 80 80 80 80 80	
00 1	Sec	IA RI	3822223	311 25 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	20	31 30 31 8	33 33 11	34 29 29	35 23 24 28	26	77777	111111	10 13 19 23	11 22 20 22 30 30	19 19 33	28 20 16 4	119 25 34 32	24 1 27 27 35		12 22 22 11 11	
SVOM	Elev.	COLVIBIA RIVER BASIN	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	4300 4300 6450 3300 6000 6000	5150	5,500 6,750 5,600 5,500	5150 6300 5770 4530	3890 4300 5250 4000	1600 6330 7000 6100 3580 6200	7100 \$600 \$200	6450 6100 6250 4200 7800	4800 4800 6000	6450 48D0 5450 5450	4200 4200 6250 7200 7100 7100	6500 7780 6500 7400 6800	0007	\$580 6570 7940 \$600 6510	5 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	MISSOURI	1600 1400 1400 1800 1800 1800 1800 1800 18	
	Number		15811 15815 15815 15815 15815 15813 15813	15A05 16A11 15A03 16A09 15A12 15A12 15A12	12803	13803 13803 13804 13804	14A09 13812 14A03 13813	14A05 14A05 13A05 13A16	13807 13807 13801 13801 13811	13013	12814 12810 12811 12811 13810	13C10 14C10 15C10	13036	1303 13037 13031 13031 13003	3005 3007 13006 13001 14801	13016 13032 13501 13502	14002 14001 13022 14C13 14C08	13418 13418 13403 13405 13406 13406		13.10 12704 3222 1331 13709	
	S Snow Coarse	NOOTENAL RIVER	Bartler Mountal Bartler Milks Agree Milks Files Cook Files Cook Br sh reek Br sh reek Cook Cook Cook Cook Cook	arren Creek Rawkies lake Redeler Creek Last Soul Poorte Creek Last Soul Poorte Creek Feeder Creek Last Soul Poorte Creek Feeder Creek Feeder Feeder Feeder Feeder Feeder Feeder	FLATHEAD RIVER	Savor Lake Big reek Cam Misery Veer Munitain Ferry Greek Flaron Wontein	riffi Creek Divide Cunsight Lake ell Roaring Divide Hol rook	Kishenah Logen Greek Mariee Pass Mineral Creek	Woire Track Worth Forth ocio Sportrad Bear wountain Trink a Lake Tvi Creeke	CLARK FORK RIVER In h Pie Combination	Copper Cares Copper Lake reek Copper Lake reek Core: Mills El Doredo Wina	Fred 3 rr Pess Cold Creek Lake Heart Lake Trail Hoodoo Basin	Intergeerd Lubrec t Flume Lubre ht Forast No. 3 Lubrec F Forest No. 4	Lubracht Poraet No. 6 .rec t vdroplot North Fork Elk Greek Pereron Meadowe Red ion Shalkaho Summit Silde No k Mountain	Southern Cross Storm aka Storm Akal Steart Mill Steart Mountain TV Mou tain	BITTERROOT RIVER Ambrase Coyote Meadows Irail Case Fork N.S. Cibbons Pass Los. Hore.	Wer Perce Lamp Nez Perce Pasa Sadd - Mountain Twelvomila freek	ST MARY RIVER BAS a bay Divide leers Lake So. 3 locephine Lower No. 9 Plean Peas No. 6 Prarrage. No. 6		BEAVERHED RIVER CARE CARE CARE RESERVED TO SERVE CARE CARE CARE CARE CARE CARE CARE CAR	

Agencies and Organizations Cooperating in Montana Snow Surveys

- U. S. Forest Service Region I, Missoula, Montana Montana Forests and Ranger Districts
- U. S. Geological Survey Helena, Montana Portland, Oregon
- U. S. Army Corps of Engineers Portland, Oregon Seattle, Washington Walla Walla, Washington Omaha, Nebraska
- U. S. Indian Irrigation Service St. Ignatius, Montana
- U. S. Weather Bureau Helena, Montana Portland, Oregon Kansas City, Missouri
- U. S. Bureau of Sports Fisheries and Wildlife Red Rock Lakes Refuge Monida, Montana
- U. S. Bureau of Reclamation Billings, Montana Boise, Idaho
- U. S. Bonneville Power Administration Portland, Oregon

- U. S. Soil Conservation Service Montana, Wyoming, Idaho
- Soil and Water Conservation Districts Montana Counties
- U. S. National Park Service Yellowstone National Park Glacier National Park
- Montana Power Company Butte, Montana
- Montana Water Resources Board Helena, Montana
- North Montana Branch Station Agricultural Experiment Station Havre, Montana
- Montana State University
 Agricultural Experiment Station
 Bozeman, Montana
- University of Montana School of Forestry Missoula, Montana
- Water Rights Branch, Dept. of Lands and Forests Victoria, British Columbia
- Department of Energy, Mines and Resources Calgary, Alberta

UNITED STATES DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE P. O. Box 98

BOZEMAN, MONTANA 59715

OFFICIAL BUSINESS



U.S. DEPARTMENT OF AGRICULTURE

BELISVILLE, MD. 20705 CURRENT SERIAL RECORD

FEDERAL - STATE - PRIVATE

COOPERATIVE SNOW SURVEYS

domestic and municipal water supply, hydro-electric power water supply for irrigation, necessary for forecasting generation, navigation, Furnishes the basic data mining and industry "The Conservation of Water begins with the Snow Survey"



USDA - NATIONAL AGRICULTURAL LIBRARY